The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 840.---Vol. XXI.] LONDON, SATURDAY, SEPTEMBER 27, 1851. [Price 6d.

PURSUANT to a DECREE of the HIGH COURT of CHANCERY, made in a cause of BIRCH *v.* PRICE, with the approbation of Sir William Horne, one of the Masters of the said court, peremptorily, by Mr. JOHNSON, on Friday, the 24th day of October next, at Three o'clock in the afternoon, at the Wynnstay Arms Hotel, in WREXHAM, in the county of DENBIGH, in one lot, the FREEHOLD ESTATE, consisting of PLAS MOSTYN FARM, COLLIERIES, and MINERALS of COAL and IRONSTONE, situate in the said parish of Wrexham. 1

Particulars may be had gratis, in London, at the said Master's Chambers, Southampton-buildings, Chancery-lane; Mr. N. C. Milne, solicitor, Harcourt-buildings, Temple; of Messrs. Hughes, Fairfoot, and Webb, solicitors, Clement's Inn; and in the country, of Mr. Jones, solicitor, Brynhyfryd, Ruthin; and Mr. Robert Humphreys Jones, solicitor, Wrexham; at the place of sale; and the principal inns in Ruabon, Liverpool, Manchester, Chester, Shrewsbury, Wolverhampton, and Birmingham.

Valuable FREEHOLD ESTATES, FARMS, and COLLIERIES, in the parishes of RUABON and ERBISTOCK, DENBIGHSHIRE, and CONTIGUOUS FARMS, in the parishes of ELLESMERE and ST. MARTIN, SHROPSHIRE.

MR. JOHNSON will SELL, BY AUCTION, at the Wynnstay Arms Hotel, WREXHAM, on Thursday, the 23d day of October, 1851 (unless previously disposed of by private contract, of which due notice will be given), precisely at Three o'clock in the afternoon, all that valuable ESTATE, called 2

PENYLAN,

situate in the parishes of RUABON and ERBISTOCK, in the county of DENBIGH, and ELLESMERE and ST. MARTIN, in the county of SALOP, containing upwards of 1600 acres of land, divided into compact farms, and let to respectable tenants, at rentals realising nearly £3600 per annum.

And also several very valuable COLLIERIES and MINES of COAL and IRONSTONE, now in full operation, and producing large royalties.

Also, the TITHE RENT CHARGES, payable out of the several townships of Cristionydd Kenrick, Dinlinlle-issa and Dinlinlle-ucha, in the said parish of Ruabon, which produce an annual rental of £307.

PART of the ESTATE, comprising the MANSION, delightfully situated, on the banks of the River Dee, celebrated for its salmon and trout fishing, within three miles of Ruabon Railway Station, and commanding the most beautiful views, and is suitable for the residence of a family of the first respectability, with the park, extensive woods and covers, abounding with game, together with several farms adjoining, and containing, in a ring fence, about 1100 acres, will be OFFERED FOR SALE in ONE LOT. The remainder of the FARMS, COLLIERIES, and TITHES, will be OFFERED FOR SALE in SEVERAL LOTS.

The Estate is in the midst of a sporting country, and is immediately adjoining the lands and park of Sir W. W. Wynn, Bart., whose kennels are contiguous, and presents an opportunity for the investment of capital rarely to be met with.

Maps and particulars may be had of Daniel Smith Bockett, Esq., solicitor, 60, Lincoln's Inn-fields, London; of Messrs. Duncan, Squarey, and Duncan, solicitors, Exchange-buildings, Liverpool; of Wm. Wood, Esq., solicitor, 16, Cooper-street, Manchester; at the principal hotels in Manchester, Liverpool, Chester, Ruabon, Shrewsbury, and Birmingham; of the auctioneer, in Wrexham; and of Mr. H. Jones, solicitor, Wrexham.

GLAMORGANSHIRE—SALE of Valuable FREEHOLD ESTATES and MINERALS

MR. THOMAS THOMAS will SELL, BY AUCTION, at the Castle Hotel, NEATH, on Wednesday, the 29th of October, 1851, between the hours of Twelve at noon and Two o'clock in the afternoon, unless previously disposed of by private contract (of which due notice will be given), in such lots and subject to such conditions of sale as will then be produced, the following valuable and improvable 3

FREEHOLD ESTATES—viz.:

The FARMS of MAESMELIN and PANT-Y-SHANEL, with the COTTAGES thereon and WOODLAND adjoining, containing altogether about 131A.

PENTWIN, containing about 47A. 0G. 29P.

A MOIETY of the FARM of NOYADD WEN, and the WOODLAND adjoining, containing altogether about 65 acres, all of which are in the parish of Cadoxton-juxta-Neath; and all MINES and MINERALS under a part, containing upwards of 200 acres, of the GLANBRANE ESTATE, situate in the parish of Llansamlet.

Particulars and plans are in preparation, and will shortly be ready for delivery.

Further particulars may be obtained of Messrs. Llewellyn and Randall, solicitors, Neath; or of the auctioneer, West of England Insurance Office, Neath, who will, on being applied to, give every facility for viewing the property.

MINING PROPERTY, situated in the parish of LLANIDLOES, in the county of MONTGOMERY, NORTH WALES. 4

TO BE SOLD, BY TENDER, the MONTGOMERY (formerly Dyfnantmelyn) LEAD AND COPPER MINE, together with the splendid NEW and RECENTLY-ERECTED MACHINERY—Water-wheel 46 feet diameter, 3½ feet breast, 20 feet crushing wheel and mill, 300 fathoms iron rods, 10 fathoms 10-inch pumps, 10 fathoms 8-inch ditto, with a large quantity of useful materials, &c.—[A detailed list of the Materials will appear in next Journal.]

Application to view the mine, &c., to be made to Capt. Michael Barbery, Plynlimmon, Rhayader, South Wales.

*** Tenders for the above receivable until the 15th proximo, to be addressed to me, at 32, New Church-street, Bermondsey, London. J. N. EDWARDS, Secretary.

September 26, 1851.

TO MINE PROPRIETORS.—TO BE SOLD, at MINEFIELD, ARGYLLSHIRE, a CRUSHING-MILL and WASHING APPARATUS, &c. The CRUSHING-MILL is of considerable power, having a cast-iron overshot waterwheel, of 36-feet diameter, driving crushing and chat cylinders, and four large break sieves, lashers, &c. There are several pairs of new cylinders ready to replace those in use; also a complete set of WASHING APPARATUS, with ore waggons, waggon-wheels and axles, and a set of blacksmiths' tools, bellows, anvil, &c. 5

The models of the machinery may be had with it, as they are all at the mine, in good preservation.

Parties wishing to carry on the mine may, with the machinery, have the remainder of the lease of silver-lead ore, yielding from 15 to 20 ounces per ton.

The mine is very favourably situated, lying at the head of Glen Creran, near Oban, and the ore or machinery may be put on board ship at 1s. per ton for land carriage.

Applications for purchase may be made to James Burgess, mining engineer, No. 49, Cumberland-row, Newcastle-on-Tyne.

TO BE SOLD, BY PRIVATE CONTRACT, the whole of the FIRE-CLAY WORKS, situated at OLD CASSOP, near DURHAM, comprising STEAM-ENGINE, of 14-horse power, STONES, PUG-MILL, all complete; PRESSING MACHINE for large pipes, and DRAIN-TILE MACHINE; 4 kilns, and 4 large drying flats, 40 feet by 22 feet; branch railway and drift rails; all the moulds for chimney tops, &c., necessary for carrying out an extensive business, together with office and foreman's house.—These works are held under the Bishop of Durham by lease, for 21 years, from May, 1847, and are connected by railway with Hartlepool, Sunderland, and Durham.—Terms, half cash, and the remainder in approved bills. 6

Application to be made to the Old Cassop Fire-Clay Company, Ferry-hill.

WALL'S-END COLLIERY.—TO BE LET, and entered upon on or after the 28th day of September next, for such a term of years as may be agreed upon, all that CURRENT-GOING COLLIERY, well-known by the name of WALL'S-END COLLIERY, at present held by Messrs. Archbold and partners, under lease from the Dean and Chapter of Durham, comprising the COAL MINES under the whole of the lands belonging to the said Dean and Chapter, in the township of WALL'S-END, in the county of NORTHUMBERLAND.

The Low Main Seam, which has been sunk to at a depth of 22 fathoms below the Benham Seam, and the Beaumont Seam, which has been bored to at a further depth of 23 fathoms, remain untouched throughout the Royalty. The Low Main Seam, in the royalty next adjoining, is of good quality, and is worked for gas purposes. 7

The Benham Seam supplies the vend of the existing colliery. The colliery is contiguous to, and has shipping berths on, the River Tyne.

Plans of the workings of the colliery, and further particulars, may be known on application to Mr. E. F. Boyd, Urpeth Colliery, near Chester-le-street; or at the offices of the Registrar of the Dean and Chapter of Durham, 28, South Bailey, Durham.

Durham, July 2, 1851.

ANTHRACITE COAL.—A fine FIELD of this valuable FUEL TO BE LET, in the parish of BETTWS, by the side of the Llanelly Railway, 12 miles from the shipping port. The anthracite of this district has proved equal in quality to the Pembrokeshire, so highly prized for drying malt. This coal burns without smoke, on which account it has been used at the Great Exhibition in Hyde Park for working the machinery. When this coal is used with a blast, and vapour of water passed through, it produces a splendid fire, generating steam with extraordinary rapidity and the greatest possible economy of fuel.

This mode of combustion is termed by the inventor, Mr. T. H. Leighton, the "hydro-carbon fire," and possesses such manifest advantages, that it must, at no distant period, be adopted on board the Government and mail-packet steamers, on which event the value of this description of property will be greatly enhanced.—For particulars apply to Thomas Jones, Esq., the proprietor, Gelly, Cwm-Aman, near Llandillo.—August, 1851.

TO AGRICULTURISTS.—IMPROVEMENTS IN THE PREPARATION OF MANURES.—AGRICULTURISTS are INVITED to take SAMPLES of MANURES (Stones's Patent Huminate), free of expense, at the office of the GENERAL PEAT WORKING AND MANURE COMPANY, 6, JOHN-STREET, ADELPHI, LONDON.—The Patent Huminate is free from filthy matter; it consists entirely of concentrated decomposed vegetable organic substances, soluble humic acid, fixed salts of ammonia, with other ingredients, according with soil, plant, and climate. It will promote vegetation in all its requirements, and invariably improve the soil, and can challenge the best guano, at one-third the cost. 8

To every scientific person, or practical farmer (however deficient in knowledge of chemical science), who inquires into the composition of these manures, the folly of buying guanos to England, even though they cost but one quarter the price now paid for them, will appear most undeniably.

Samples may be had on application at the *Mining Journal* office, 26, Fleet-street.

MR. JAMES CROFTS, of 4, KING-STREET, CHEAPSIDE, MINING BROKER, OFFERS his best SERVICES to CAPITALISTS for the PURCHASE or SALE of MINING SHARES, and transacts business only for principals.

MR. CROFTS has FOR SALE SHARES in the following MINES:—Wheal Zion, Okel Tor, West Polgooth, Appledore, South Tamar, Bedford United, East Tamar, Higuston Down, East Gunnis Lake, Bodmin Consols, Warleggan, Wheal Lovel, North Fowey Consols, East Russell, Calstock Consols, Wheal Samson, Devon Burra Burra, Devon Consols North, Boringdon Park, East Boringdon, Wheal Williams, North Basset, and can PROCURE or SELL SHARES in all DIVIDEND MINES, and in particular a permanent one, paying £8 per share upon a cost of £35 per share, or nearly 25 p. ct. per annum interest.

*** WANTED TO PURCHASE—West Providence, Spearne Consols. 16

The increased business in mining shares is producing more regularity in prices, and rendering transactions of a more easy and satisfactory character. Mr. Crofts will (confidentially) give an opinion of the value of any mine within his knowledge, either personally or by letter.—Dated Sept. 27, 1851.

MR. EVAN HOPKINS, C.E., F.G.S., *OFFICE,—13, AUSTINFRIARS, LONDON.* 11

Mr. HOPKINS'S OFFICE is SUPPLIED with PLANS and SECTIONS of the principal MINES in the UNITED KINGDOM.—The REPORTS, and all essential particulars, are faithfully and regularly RECORDED; these, together with possessing a thorough practical knowledge of the business in all its details, and being ENTIRELY FREE FROM SHARE DEALING, renders the office a proper, and as yet the only, place where DISINTERESTED INFORMATION can be OBTAINED.

The object of the office is to communicate information on all subjects connected with General Science—on Mineral Properties in all parts of the world—to protect legitimate Mining—to see justice done to the Capitalists and Property, and to point out the necessity of placing such speculations in the hands of responsible business men. Capitalists, will, therefore, have themselves to blame, if they allow their property or capital to be wasted by jobbing and inefficient managers.

*** Annual clients are regularly supplied with every information that may be required on home and foreign speculations.

GENERAL MINING OFFICES, 23, *Threadneedle-street, London.*

MR. JOSEPH JAMES REYNOLDS, late of CAMBORNE, CORNWALL, begs to inform his friends and the public that he has COMMENCED BUSINESS as a MINING and GENERAL AGENT at the above office, and trusts, by paying a due regard to the welfare of his clients, that he will at all times merit their confidence. Having been connected with the management of mines in the most productive districts of Cornwall upwards of twenty years, and being in communication with some of the most respectable agents in the mining districts, Mr. Reynolds will be enabled at all times to furnish such information as may be relied on.

Mr. Reynolds has SHARES in the following MINES FOR SALE:— 12

Carvannall	East Pool	Condurrow
West Basset	Cook's Kitchen	West Wheal Seton
West Stray Park	East Wheal Frances	Wheal Seton
Pendarves & St. Aubyn	Great Wheal Sheba	Millpool
South Condurrow	Great Wheal Baddern	Daren
Wheal Unity	West Wheal Virgin	Great Wheal Sheba
Wheal Gill	Wheal Lovel	North Tolgus
Sydney Godolphin	North Fowey Consols	&c. &c.
Rocks and Treverbyn	Wheal Susan	

Many of the mines referred to in the above list are well worthy the attention of capitalists.

And is a BUYER in the following MINES:—Spearne Consols, West Providence, Treleigh Consols, and Devon Great Consols.

J. J. REYNOLDS will carry on business upon COMMISSION ONLY, making no intermediate price between buyers and sellers, and will be ready at all times to introduce the buyer and seller of any shares to each other.—Office hours Ten to Four.

MESSRS. FRANCIS & CO., in order to avoid the complicated and indefinite system of CALLS for working or proving mines, consider that a better and more satisfactory one will be found in offering the public those chiefly in which the machinery and underground work required to bring them into a state of profit has been completed and paid for.

In mines thus far advanced, it will be obvious that as there will be no risk, so there can be no necessity for calls—the speculative part of the adventure having been gone through; and in this way capitalists will be enabled to invest with the certainty of immediate returns.

Mr. MATTHEW FRANCIS takes leave to announce, that he has several THOUSANDS of POUNDS WORTH of SHARES to DISPOSE OF, which, at the selling price, give a profit of from £20 to £40 per cent. 13

*** Offices, No. 7, John-street, Adelphi, London.

MINING OFFICES, REDRUTH.—JOHN ROBERT PIKE, GENERAL SHAREBROKER (on Commission only), being resident in the centre of the Mining district, POSSESSES great FACILITIES in the DISPOSAL OF or PURCHASING SHARES, INSPECTING MINES, &c., on the most moderate and honourable terms. 14

MINING AND RAILWAY OFFICES, No. 3, CASTLE-TERRACE, EXETER.—Mr. JOHN JURY, RAILWAY and MINING SHAREBROKER, OFFERS his SERVICES to CAPITALISTS in the PURCHASE or SALE of ANY DESCRIPTION OF PROPERTY; and will be happy to point out a selection of such stock as appear the most eligible, from data that can only be arrived at by those who give an undivided attention to the subject.—Every information afforded (either in person or by letter) to capitalists wishing to invest or exchange their securities, and sales or purchases effected upon the best terms, and at one-half the commission usually charged. 15

MR. THOMAS JORDAN, METAL BROKER, No. 75, OLD BROAD-STREET, CITY, exclusive AGENT for one of the BEST MAKERS of HAMMERED IRON, for MARINE, LOCOMOTIVE, and other ENGINES. Also AGENT for the SALE of SOUTH STAFFORDSHIRE and WELSH BAR, BOLT and BOILER PLATE IRON, in all its varieties. 16

The Proprietors of Lead and Copper Mines in Devon, Cornwall, Wales, &c., will find great advantage in the quality and cheapness of the Iron they require, by seeking quotations through the Advertiser.

MOLYNEUX & CO., MINE AGENTS, No. 34, THREADNEEDLE-STREET, have SHARES ON SALE in DIVIDEND-PAYING and OTHER MINES, which will ensure to CAPITALISTS the safest and most unexceptionable investment. 17

*** Offices of the Wheal Langford and Baring United Mining Company, and Trelwell Consols Mining Company, No. 34, Threadneedle-street.

REMOVAL—104, *Bishopsgate-street-within.*

MR. PEET, MINING AGENT AND GENERAL SHARE BROKER, has REMOVED to the ABOVE CONVENIENT OFFICES. The same attention paid as hitherto to all MINING BUSINESS of legitimate character; and in thanking his friends for former commissions, he solicits a continuance of their kind support.—OFFICES of Wheal May, Pentire Glaze and Pentire United Mines, Devons Consols West, and Wheal Hamlyn.—The strictest confidence observed in all transactions, and the registry of shares will be free, unless a sale or purchase takes place. 18

MINING, AUCTION, AND GENERAL AGENCY OFFICE, No. 3, GEORGE-YARD, LOMBARD-STREET, LONDON.

Messrs. TREDINNICK & CO. beg to inform their Friends and the Public that they continue to TRANSACT EVERY DESCRIPTION of MINING AGENCY BUSINESS, and have ON SALE SHARES in most of the DIVIDEND MINES in CORNWALL, DEVON, and WALES, as well as those on the eve of paying, and situate in the best mining districts.—Loans and Money Matters in general negociated; Mines Inspected, and Reports obtained from practical agents, and every information affecting the market value of mining property afforded gratuitously. 19

MINING OFFICES,—ST. MICHAEL'S CHAMBERS, ST. MICHAEL'S-ALLEY, CORNHILL.—Mr. R. TRIPP has for *bonâ fide* SALE shares in most of the BEST DIVIDEND MINES, including the following:— 25

Devon Great Consols	South Tolgus	Herodsfoot
Wheal Reeth	West Caradon	Lewis
Alfred Consols	South Caradon	Holmbush
Condurrow	Wheal Mary Ann	Callington
Wheal Margaret	Wheal Trelawny	Tincroft
Spearne Consols	Bedford United	West Providence
Stray Park	Providence Mines	Trehane
East Pool	Wheal Tremayne	Tremar Consols

And in others having present and prospective advantages, including

Wheal Zion	Speedwell	Penzance Consols
Wheal Arthur (Calstock)	Kingston Down	West Treasury
East Russell	Wheal Crebor	Pendarves
South Tamar	East Wheal Reeth	Cook's Kitchen
East Crowndale	Hennock (lead)	Lelant Consols
Wheal Lemon	Great Wheal Alfred	Great Wh. Baddern

FOREIGN.—Copiapo, St. John del Rey, Cobre, Linares, Worthing, &c.

REGISTRY FOR THE SALE AND PURCHASE OF MINING SHARES.

DURRANT & CO., MINING SHAREBROKERS, 58, LOMBARD-STREET, LONDON, Beg to draw the attention of Capitalists to their REGISTRY for the SALE and PURCHASE of SHARES. 21

	SHARES FOR DISPOSAL.	
Devon Great Consols	Wheal Mary Ann	South Caradon
Carn Brea	Wellingtons	Great Wheal Sheba
West Caradon	West Buller	Treviskey
Trelawny	Tolgus	Bedford United

N.B.—Statistical information furnished on British and Foreign Mines.—No CHARGE made for the registration of shares unless business be transacted.

MINING EXCHANGE.—The MEMBERS TRANSACT BUSINESS in the HALL OF COMMERCE, THREADNEEDLE-STREET, DAILY—commencing at Twelve o'clock. 22

JAMES STRIDE, Sec.

MINING RECORD OFFICE,—SUPPORTED BY MINING ADVENTURERS AND OTHER CAPITALISTS.

The want of a convenient place of reference in London, where gentlemen may obtain authenticated, disinterested, practical, and scientific information on subjects connected with our subterranean industry, has been long felt. Hitherto it has not only been imperfectly procured from interested parties, but frequently so ambiguous and incorrect as to mislead the uninitiated—thus creating a total want of confidence, and bringing discredit on the science of mining. There is no branch of industry at present where there is so much capital employed, both at home and abroad, without any definite system, or a place of reference to guide the capitalist, as mining. The opinion of an ordinary miner, conveyed through the medium of interested promoters, being often the only inducement to carry on a mine; and when any doubt arises on the character of the speculation, or the qualification of the parties to manage the same, or its intrinsic value, there are no means at present by which such questions can be satisfactorily decided, without incurring much time and expense—hence the cause of so many disappointments and heavy losses.

To remove these inconveniences, and remedy the evils now complained of in mining speculations, and to promote a more general practical and scientific knowledge of mining amongst those who invest, and have an interest in the pursuit, Mr. HOPKINS intends to take larger OFFICES, for the DEPOSIT of the RECORDS of MINING, with GEOLOGICAL and MINING MAPS, PLANS, &c., SPECIMENS of MINERALS, DRAWINGS and MODELS of MACHINERY, BOOKS, &c.—in short, every thing connected with MINING and GENERAL SCIENCE. To be arranged and open daily from Eleven to Four, together with periodical advice and instructions for the benefit of members paying annually £5. The establishment will be carried on on the same principle as the present office—viz.: free from party interest and dealings in shares, and strictly confined to that of furnishing useful and authenticated information at all times to members. 23

When 200 have subscribed their names as members, a certain number will be appointed as trustees of the institution, as a guarantee to the members that the rules which will be adopted be strictly adhered to, and that no persons are admitted as members but those approved of by a committee. Those who intend to become members, or annual subscribers, are respectfully requested to enter their names in the book now open for that purpose, at Mr. Hopkins's office, 13, Austinfriars.

MINING PROPERTY.—Mr. HERRON has SHARES in the best DIVIDEND-PAYING MINES FOR SALE, and which will give the purchaser 15 to 20 per cent. for the outlay. Amongst others are the following:— 24

North Basset	West Providence	Tincroft
West Buller	West Caradon	Cobre
South Frances	South Caradon	St. John del Rey
Treviskey	Wheal Trelawny	Copiapo
Alfred Consols	Mary Ann	Wheal Tremayne
East Wheal Rose	Devon Great Consols	Bedford United

And has also FOR SALE SHARES in MINES having a PROMISING APPEARANCE, and affording greater range for speculation, such as—

Crane and Bejawsa	Trefusis	Treleigh
West Basset	Wellington	Kilbricken
Wheal Grenville	West Alfred Consols	Merlyn
West Frances	South Tamar	Grambler & St. Aubyn

Mining Offices, 33, Clement's-lane, Lombard-street.

MR. JOHN DAVIES, MINING SHAREBROKER, *No. 38, TOWER-BUILDINGS, TOWER-GARDEN, LIVERPOOL.* 25

MR. GEO. CARNE, DEALER IN STOCKS AND SHARES, 28, *THREADNEEDLE-STREET, LONDON.* 26

MR. RICHARD GREENWOOD begs leave most respectfully to acquaint his Friends and the Public generally that he has COMMENCED the BUSINESS of an AUCTIONEER, APPRAISER, MINE SHAREBROKER, and general COMMISSION AGENT.—Mr. R. GREENWOOD having for many years been engaged in the Mining and Commercial business of this county, and being fully aware of the desirableness of strict confidence in those who arrange such transactions, does not hesitate to pledge himself to the conducting of whatever business may be committed to his care, with the strictest attention to the interests of his clients. 27

Parties entrusting property to Mr. Greenwood can be accommodated with an advance of money in anticipation of a sale.—OFFICES: PYDAR-STREET TRURO.

MINING INVESTMENT.—T. FULLER AND CO., No. 51, THREADNEEDLE-STREET, LONDON, beg respectfully to inform the public that they are in a position to BUY and SELL in all the DIVIDEND-PAYING MINES, which upon present purchase will pay from 15 to 25 per cent., and have on hand Bedford United, Devon Great Consols, Mary Ann, Trelawny, West Caradon, Great Wheal Friendship and Venton, Boringdon Park, Wheal Catherine, Franco, Zion. Also shares in Wheal Williams—this is a continuation of the Devon Great Consols, and embracing several of the same lodes; also Devon Conso's North—this adjoins the latter, which, with £1 paid, are marketable at £300, and paying £48 per annum in dividends.—Every information given, either personally or by letter.—Office hours from Ten to Four. 28

MR. ALFRED SENIOR MERRY, DEALER IN COBALT AND NICKEL ORES, AND ASSAYER IN GENERAL.—Address: *LEE-CRESCENT, BIRMINGHAM.* 29

MR. JOHN PHILLIPS, MINERAL SURVEYOR AND MINE MANAGER, MARGARET-STREET, NORTH ADELAIDE, in the province of SOUTH AUSTRALIA, after three years' residence and two years' exploration in the colony, RESERVES his EXPERIENCE for BRITISH CAPITAL; awaiting the result of this advertisement in a suitable remuneration for past time and future services. 30

WANTED.—An English Gentleman, educated as an Engineer at the National Mining School at Paris, where he has taken his degree—an experienced draughtsman—perfectly master of the French language—desires an APPOINTMENT in one of the FRENCH or ENGLISH RAILROADS, in the locomotive department, or an EMPLOYMENT as SUPERINTENDENT of LEAD MINES or WORKS. The Advertiser has particularly directed his attention, in Germany and in England, to the Smelting of Silver-Lead Ores, and has acquired a practical knowledge of locomotives at the works of the Paris and Orleans Railroad.—Direct Mr. Bardon, *Mining Journal* office, 26, Fleet-street, London, or Rue Vintimille, 6, Paris, France. 31

WANTED,—A MINING CAPTAIN, fully competent to undertake the MANAGEMENT of a SILVER-LEAD MINE in CARDIGANSHIRE.—Applications and testimonials as to character and efficiency, forwarded to Mr. J. H. Smith, 80, Cornhill, will receive immediate attention. All letters must be pre-paid. 32

WANTED,—A WORKING FOREMAN, in an IRON FOUNDRY, in one of the MIDLAND COUNTIES, who thoroughly understands his business in all its branches. Salary £100 a year.—Applications, with testimonials (post-paid), to be addressed "T. W.," at the office of the *Mining Journal*, 26, Fleet-st. 33

FORGE AND MILL MANAGER.—WANTED, at IRONWORKS in GLAMORGANSHIRE, a FORGE and MILL MANAGER, to take the SUPERINTENDENCE of a PUDDLING FORGE and of MILLS, producing about 300 tons per week of bars, rails, and rods.—Applications, giving references as to ability and character, to be made to F. W. Gibbon, Esq., 15, Old Jewry Chambers, London. 34

TO MINE CAPTAINS.—WANTED, a steady intelligent MAN of experience, to take the SUPERINTENDENCE of a SILVER-LEAD MINE in CORNWALL. The mine is in full operation, and largely productive, and an underground captain is employed.—Apply by letter, with testimonials, to "R. S.," at the office of the *Mining Journal*, 26, Fleet-street, London.—N.B. None need apply who cannot devote their whole time and attention to the mine. 35

MINING.—A Practical MINER and COPPER SMELTER is in WANT of an ENGAGEMENT.—The Advertiser has had extensive experience in this country and abroad, and has unexceptionable references.—Letters to be addressed "L. A.," at the office of the *Mining Journal*, 26, Fleet-street, London. 36

WEST PHŒNIX AND WHEAL GILL.—A FEW SHARES in these promising ADVENTURES, so favourably reported on by Mr. Evan Hopkins, TO BE DISPOSED OF. No premium required. Satisfactory reasons given for parting with them.—Apply by letter, to "A. B.," at the office of the *Mining Journal*, 26, Fleet-street, London. 37

TAMAR SILVER-LEAD MINES—FORFEITURE OF SHARES.—Notice is hereby given, that the following SHARES are ABSOLUTELY FORFEITED, in accordance with the resolution, dated 24th July last, previously advertised. The CALL of £1 per share, due 4th November, 1850, being UNPAID on the said shares, and the Numbers of which are as follows:—275, 276, 658, 787, 788, 797, 798, 799, 800, 801, 802, 803, 1113, 1114, 1116, 1117, 1120, 1121, 1128, 1129, 1130, 1131, 1151, 1154, 1155, 1186—say 26 scrip certificates, of five shares each = 130.

1265, 1266, 1267, 1268, 1494, 1545, 1546, 1547, 1548, 1549, 1550, 1551, 1610, 1611, 1629, 1647, 1663, 1664, 1665, 1666, 1667, 1857, 1858, 1859, 1889, 1896, 2020, 2028, 2029, 2062, 2338, 2372, 2389, 2390, 2400—say, 25 scrip certificates, of three shares each = 105.

By order of the board. PETER STAINSBY, Secretary.

Salvador-house, London, Sept. 11, 1851. 38

TRELEIGH CONSOLIDATED MINING COMPANY.—Notice is hereby given, that the ANNUAL GENERAL MEETING of the shareholders will be HELD at the offices as under, on Wednesday, the 8th of October next, at Twelve for One o'clock precisely. The accounts will lie at the office for the inspection of the shareholders two days previous to the meeting. WM. NICHOLSON, Sec.

57, Old Broad-street, Sept. 16, 1851. 39

ON THE CONSTRUCTION OF IRON VESSELS EXPOSED TO SEVERE STRAIN.

[Read by Mr. W. FAIRBAIRN, at the meeting of the British Association.]

In the construction of vessels, such as boilers, pipes, &c., exposed to severe internal pressure, it is desirable to obtain some knowledge of the strength and condition of the material used, and some fixed rules calculated to enable us to judge with accuracy as to the disposition of the parts, in order to apply the greatest strength in the direction of the greatest strain—and, in fact, so to dispose of the material, that every part of the vessel shall balance itself in its powers of resistance when subjected to uniform pressure. To attain these objects, the author gave the results of his experiments on the resistance of malleable iron plates, first announced to the British Association, and subsequently published in the *Transactions of the Royal Society*. These experiments were originally undertaken to determine the strength of metal plates, beams, and angle iron, as applied to shipbuilding; and they have since been continued, from time to time, for the equally important purpose of improving the construction of malleable iron bridges, boilers, and other vessels, such as caissons, and sheet-iron pipes, which are now coming into more general use for pump-trees, and other articles connected with mining. In order to acquire satisfactory data on the strength of the material employed, a variety of plates from Low Moor, Staffordshire, and other parts, were submitted to direct experiment: first, by tearing them asunder in the direction of the fibre, and, secondly, across it. The tensile strength per square inch was ascertained to be as follows:—

	In direction of fibre.		Across fibre.
Yorkshire plates	*Tons* 24·26	*Tons*	26·93
Derbyshire plates	21·68		18·66
Shropshire plates	22·82		22·00
Staffordshire plates	19·56		21·01
Mean in tons	22·16		22·29

From this it will be observed that there is no difference in the strength of iron-plates, whether torn in the direction of the fibre or against it, and this uniformity of strength probably arises from the superior manner in which that article is now manufactured. The experiments, would, however, be imperfect as regards construction if they had not been extended to the process of rivetting; and on this point our information has been of the most meagre description. Until of late years, many of our numerous constructions have been conducted under the impression that the rivetted point was not only strong, but absolutely stronger than the plate itself; whereas more than one third of the strength is lost by that process. To prove the fallacy of these views, it was ascertained by experiment that the strength of iron-plates, as compared with their rivetted joints, was not only weakened to the extent of the quantity of metal punched out to receive the rivets, but that in the following ratios—viz., as 1000 to 700 in the double-rivetted joint, and 1000 to 560 in the single-rivetted joint. From the above facts practical formulæ have been deduced to show that the maximum resistance of single-rivetted plates does not exceed 27,000 lbs. to the square inch; and taking into account the crossing of the joints and other circumstances peculiar to sound construction, 34,000 lbs., or 15 tons per square inch, has been found to be the maximum strength of rivetted plates such as those used for boilers and similar constructions.

In conclusion, attention was directed to several important improvements in connexion with the construction of steam-boilers by the introduction of gussets to strengthen the flat ends and retain them in shape. After noticing that all boilers should be of the cylindrical form, Mr. Fairbairn observed that where flat ends are used they should be composed of plates one-half thicker than those which form the circumference. The flues, if two in number, to be made of the same thickness as the exterior shell, and the flat ends to be carefully stayed with gussets, of triangular plates and angle iron, connecting them with the circumference and the ends. The use of gussets is earnestly recommended as being infinitely superior to, and more certain in their action than stay rods. They should be placed in lines diverging from the centre of the boiler, and made as long as the position of the flues and other circumstances in the construction will admit. They are of great value in retaining the ends in shape, and may safely be relied on as imparting an equality of strength to every part of the structure.

A Mr. John Stewart, of Cape Breton, is said to have discovered the science of perpetual motion.

PROGRESS OF STEAM PROPULSION IN AMERICA.—The ordinary beam engine has been recently introduced into steam-vessels on the great rivers of America with success; the *Prometheus*, recently fitted with one, made the voyage from New Orleans to New York in 6½ days, the quickest passage known. The following have also recently been fitted with beam engines:—The *Pacific*, *North America*, *El Dorado*, and *Brother Jonathan*. The last three are intended for the trade from New York to New Orleans and Chagres. Oscillating engines are also getting into much repute, from the economy in weight and space which they secure. The following vessels are fitted with these engines:—The *Republic*, 54-in. cylinders, 6 ft. stroke; *Monumental City*, 44-in. cylinders, 8 feet stroke; *Col. Frémont*, 40-in. cylinders, 28 in. stroke; and *Albatross*, 40-inch cylinders, 40-in. stroke. These engines were all furnished in pairs, and the engineers, both in New York and Baltimore, are building a large number of this description of engines, which have been found so convenient and economical in our own steam navy.

ROTARY STEAM-BOATS.—The first experimental trip by a steam-boat upon the principle projected by Mr. Ebenezer Barrows is described by the *New York Journal of Commerce* as being quite successful. "The vessel (says the account) is but 35 feet long, 7 wide, 4 feet draught of water, and can carry 20 or 30 persons. The engine is very small and compact, occupying a space of but 14 by 10 inches. The steam chest or chamber is but 5 in. over, and seven-eights of an inch deep, equal to about 5 cubic inches. The wheels are 4½ feet in diameter, with 16 floats or buckets, and are driven at the rate of 50 or more revolutions per minute. The power is applied simultaneously on two sides, and from its constant and steady force a perfectly uniform motion is produced; the vessel's momentum is not lost, and, consequently, a more effective result is caused by the same amount of power. The capacity of the engine is 150 lbs. pressure to the square inch; but at no time during the trip was there over 60 lbs. She ran against an easy tide-way at the rate of over eight miles per hour. Patents for the invention have been procured in the United States, Great Britain, France, and Belgium."

BISHOPP'S DISC ENGINE.—We had the pleasure the other day of inspecting a disc engine which is in the course of exhibition at the works of Messrs. G. and J. Rennie (by which eminent firm it has been built), for the purpose of enabling ship-builders and nautical men to judge of its suitableness for screw propulsion. The engine is a considerably improved edition of the one in use at the *Times* office. The first of the improvements now introduced by Mr. Bishopp consists in dispensing with the slips and springs employed in packing the cones, by which arrangement the easiness and smoothness of the motion of the disc is much increased. Secondly, the cylinder is entirely enclosed by a steam jacket. Thirdly, the groove on the top of the cylinder, hitherto employed as a guide for the disc, is dispensed with, and the bow of the diagonal shaft connected to a second bow crossing it at, or almost at, right angles, the ends of which last are pinned to opposite sides of the cylinder, in such manner as to admit of the bow rocking on those pins as fulcra when the disc is in motion, and at the same time preserving the disc in steam-tight contact with the cones. A fourth improvement consists in connecting the end of the diagonal shaft with the driving crank by a ball-and-socket joint, which is capable of sliding in a radial slot, but kept up to the periphery of the crank by a block of vulcanised India-rubber, so as to prevent jarring. The working of the engine is beautifully smooth and easy, and the high speed obtained renders it peculiarly adapted for driving the screw, without employing any such expensive and easily-deranged gearing as is necessary with the engines ordinarily applied to that purpose. The weight of the engine also is trifling, and it occupies but small space, and, in consequence, can be placed at a low level in the vessel.—*Mechanics' Magazine.*

ROYAL GARDENS, VAUXHALL.—After a successful season this popular place of amusement closed last night. The novelties produced during the present year by Mr. Robert Wardell, the spirited lessee, have been of the most attractive nature, if we are to judge from the crowded audiences who have nightly visited the Royal property. On Monday next a grand extra night will take place, being for the benefit of Mr. B. S. Fairbrother, the treasurer. This gentleman, who has filled that situation for many years at the Surrey, Olympic, and various theatres in the metropolis, is so well known to the play-goers of London, that we cannot but augur he will obtain a crowded audience. We trust on this occasion his friends and the public will rally round him, so that his benefit may prove a bumper.

Mr. Dargan has contracted for the execution of the works of the Killarney Junction Railway.

WONDERFUL EFFICACY OF HOLLOWAY'S OINTMENT AND PILLS.—Nine months since a gentleman residing in Glasgow, county of Monaghan, had an opening made from the hip to the knee, and a great deal of diseased flesh removed. For three years he suffered night and day, although he consulted all the most skilful surgeons and physicians he could hear of, using baths, liniments, &c., without effect. He expected to be a cripple for life, yet by the use of Holloway's ointment and pills he is now cured, and enabled to attend to business for the last six months as though nothing had happened. His address is known to the proprietor of the *Armagh Guardian*.—Sold by all druggists, and at Professor Holloway's establishment, 244, Strand, London.

ON THE REAL ELEMENTS OF NATURE.—No. II.

INTRODUCTION.—(*Continued*).

Now, as nothing real can, by any possibility, exist—whether it be visible or invisible to human perceptions matters not—without assuming some shape or form, it must be evident, that both *matter* and *spirit* did, on their creation, put on *specific* and *positive* shapes or forms—not relative ones, be it observed, for that would, in their insulated, elementary, or atomic state, have been impossible; therefore, their figures were figures *per se*—shapes like nothing but themselves. Here, again was manifest the result of consummate skill, for it would have been unnecessary—and, consequently, it would, in some measure, have been folly—to have made their shapes at any point alike—an oversight never to be justly laid to the charge of Him who said to the sea, "thus far shalt thou go, and no farther."

Now, reader, search the world around, or any part of what is termed the universe, and try if you can trace out the shapes of these TWO elementary bases of all conceivable natural things. As, however, it would be a perfect waste of time and labour to search after them in the labyrinth of Nature's combinations, I will save you the trouble, by telling you at once, that they are nowhere to be found in *Nature!*—for the *figures* of the two elements in question, as well as the *elements* themselves, are what, in real truth, may be termed *supernatural things!*—that is, they were created, or called into being, *before* the formation or compounding of natural things. They are the sensible and integral parts of all natural things, and they will continue to exist, and be in pristine vigour, on the termination of all natural things. The elements themselves exist in the *celestial*, and the figures, or shadows of them, in the *human* MIND alone; hence they are *mental, positive* "*real things*," as Pythagoras would say—and not equivocal, imperfect, or *relative* ones, as at present imagined.

That it may appear strange and unaccountable to many people to hear it said, that *real things* exist in the world, and yet they are nowhere to be found amongst *natural things*, I am free to acknowledge; but their non-appearance amongst natural things is by no means proof of their non-existence, as a very few moments' reflection, "rightly had" (as an ancient and learned sage used quaintly to observe, with respect to seeing things in a *right light*)—a very few moments' reflection will plainly elucidate. Who ever saw those things termed *oxygen, hydrogen*, and *nitrogen*, except in combination with other natural bodies?—and yet such substances are, on all hands, fully admitted to be purely *natural things*. If, therefore, to use an ancient mode of expression, we are free to acknowledge that certain compound things, which we *cannot see*, are nevertheless truly natural ones, why should we hesitate to believe in the existence of supernatural things, merely because we may be unable to obtain a physical view of them? However, to put the question at rest, I will proceed to exhibit a mental view at least, and partly a physical one also, of these very self-same *supernatural bodies* (if the expression may be allowed); and I would ask the reader to indulge me so far as to admit, that when *mental* and *physical* demonstrations are given upon this, or any other *positive* case, all beings termed rational ought to have faith in the conclusions, until greater and more satisfactory proofs can be given to the contrary. By proceeding on this principle, TRUTH will ultimately and universally prevail—and error, folly, and superstition, be banished from progressing human society. Now, there having been TWO distinct and perfect *elements* created, previous to the formation or compounding of natural things, so also there *must* have been TWO distinct and perfect *figures* simultaneously produced. Probably, some parties may object to the term *must*, as being an expression too strong, upon a subject apparently so obscure; but I beg to observe, that no words can be too strong, when TRUTH itself is to be proclaimed; therefore, in *proof* of the existence of TWO, and only ONLY *two*, things, the inventive powers of man have yet never been, nor ever will be, able to devise *more* than TWO FIGURES out of the apparently infinite combinations of the entire universe!—which figures, therefore, it is perfectly fair to conclude, are the true representatives, shadows, or semblances, of the TWO before-mentioned elementary bodies—*spirit* and *matter*; for it is as impossible to conceive a *real thing* to exist without figure or shape, as it would be to exhibit a relative figure or shape without an outline or origin—*the* ONE is the constant and inevitable result of *the* OTHER: hence we may be assured, that *cause* and *effect*, substance and shadow, light and darkness, were, in the outset of creation, still are, and till "time becomes eternity" will ever continue to be, most admirably and beneficially suspended, as it were, in juxta position with each other, and NATURE is the result.

I think the reader will now begin to see that supernatural things may, without violence to any of the powers of man, be clearly and distinctly perceived. Here we have the TWO elementary bodies of Nature, which it is impossible for created eyes to behold, brought to our perception by TWO, and the ONLY *two* figures which the whole of mankind unequivocally admit to be real, original, and unique ones—that is, the *right line* and the *curved one*, the *square* and the *circle*, the *cube* and the *sphere*, all of which are merely modifications of the figures alluded to. Still, although these figures will be admitted by all to be both *visible* and *real*, yet, as above stated, they are positively neither more nor less than *supernatural ones*, for they do not exist in *Nature*, but are exclusively, wholly, and solely, the PRODUCTION OF ART—which leads to the conclusion that all the results of ART are, strictly considered, *supernatural things!*

Now, since mathematicians have never been able to invent *more* than two *real* figures—nor, indeed, is there any necessity of their doing so, since those are amply sufficient for exemplifying all possible physical shapes and forms; nor metaphysicians, or philosophers of any description, class, or denomination, to show that compounds could be formed with *less* than two elements—nor that *more than two* elements are in any way essential to the production of equally as great a number of *things* as the two mathematical figures are of representing appearances—we may safely rest at the conclusion, that *more* than TWO things *need not* have been (and, consequently, *were not*) created in the first instance, to ultimately compound the interminable catalogue of relative bodies, which, in the aggregate, mankind, by mutual consent, have agreed to term the universe; but, with *less* than TWO things, Wisdom itself would never have been able to accomplish *any one single natural result!*

Modern science says, *oxygen* and *nitrogen*, combined in certain proportions, constitute the atmospheric air we breathe (putting casual, and, indeed, essential, combinations out of the question)—in other proportions they constitute nitrous oxide (frequently termed "laughing gas"), nitrous gas, nitrous acid, and nitric acid; yet, as I before observed, who ever saw either *oxygen* or *nitrogen?* It is admitted, that, by combining what are termed oxygen and nitrogen together in certain proportions, the products just named may be readily compounded; but such being the case is by no means proof that oxygen and nitrogen are really simple and undecompoundable bodies. Potash, soda, and lime, were as much considered simple elementary bodies, previous to Dr. Beddoe's suggestions, and Sir H. Davy's wonderful discoveries of there being oxides of peculiar metals, as oxygen and nitrogen are at the present day. Here I feel myself warranted to say, that, by the powers of science (which are omnipotent!), all bodies that possess *relative properties* will, like other relative substances which formerly—nay, even in the morning, as it were, of the present day—were considered *simple elements*, be discovered to be compounds of neither *more* nor *less*, than TWO distinct and perfectly *original things*—viz., the TWO things that were *created*, not *formed*, previous to the compounding or formation of any physical result whatever; and then will mankind be able, with the greatest facility, to produce, not only all those results which at present are admitted to be *compounds*, but nearly every one of those which philosophers have denominated *simple elements!* Hence, metamorphosis, or transmutations, of the most wonderful kind, will be occurrences as little strange to the people of future generations, as the decomposition and recomposition of water is to a large majority of the people of the present day.

Here, reader, I shall rest for the present, in order that the advocates of more than "*fifty* conflicting elementary bodies" may have an opportunity of bringing forward *mental* and *physical* proofs of the *positive* existence of their regiment of *relative things*—or, indeed, even of a *single element*, in the true sense of the word, beyond the TWO indisputable ones herein particularised, which, in their kind, are perfectly original, unique, and unalterable.—S. B. ROGERS: *Nantyglo, April* 8, 1844.

LITERARY NOTICE.

A Treatise on the Substantive Law relating to Letters Patent for Inventions. By HENRY LUND, Esq., of Trinity College, Cambridge, M.A., and of Lincoln's Inn, Barrister-at-Law. London: Sweet, Chancery-lane—1851.

From the excitement which has long existed in the public mind, and is likely to continue until some substantial modification and improvement of the Patent Laws take place—too much information on their origin, character, working, and bearing on society in general, cannot be sent forth to the world; and any work with such characteristics, and embodied in a form which, avoiding the technicalities of the law, makes every point touched upon intelligible and plain to the ordinary reader, is undoubtedly a desideratum to the inventive portion of the public. Such a volume we have now before us: in his preface the author informs us that of the two natural and useful positions into which any system of law may be divided—substantive law and the law of procedure—he has in this volume chosen the latter, which is entirely arbitrary, and no change can be too great or decisive, provided it combine certainty with expedition. An attempt is here made to prepare for the consolidation of the substantive law relating to patents for inventions, and to provide the profession of the law, as well as inventors, with a methodical and complete, yet concise, treatise on this intricate subject. In the divisions of his subject, the author considers the characteristics of a patent—the propositions relating thereto, the specification, on the granting licenses, and assigning letters patent, and on the infringement of a right secured by letters patent.

These chapters are subdivided, that the distinctive features may be clearly shown, and which are illustrated by decisions in the courts of law, in 90 cases of important patent trials. The authorities cited are arranged in convenient groups—the important passages given *verbatim*, and the extracts confined, as strictly as possible, to their immediate bearing on the precise point under discussion. Upon the whole, the author has produced a little work which, in 240 pages, contains as much information for the scientific man and inventors generally as is rarely to be found in some works of double the size, and we have no doubt it will find a ready sale among them. It may be called a treatise on law, written in common English—rather a rare occurrence.

VIEW OF THE CRYSTAL PALACE AND NEIGHBOURHOOD.—Among the thousand and one pictorial representations of the great glass exhibition building in Hyde-park, is one published by Mr. C. P. B. Shelley, C.E., of Blizard's-place, Fulham-road, and Mr. H. H. Treppass; artist, late with Messrs. Fox, Henderson and Co., which gives a most correct idea of the magnitude and extent of this extraordinary production of modern times. No expense appears to have been spared to render it an accurate and striking representation of the original: the surrounding scenery, including the Serpentine and Park, with the new buildings on the southern side of the Kennington-road, are stated to be laid down from actual survey; the minutiæ of the building itself appears exceedingly accurate; it is beautifully and artistically coloured, and a correct idea of the vastness of the dimensions is conveyed at a glance, particularly in comparison with surrounding objects. It is laid down isometrically, or, as the author terms it, "trihedral," as showing three sides of every object. It is dedicated, by permission, to H. R. H. Prince Albert, and will, we have no doubt, be well appreciated by the public, particularly architects, surveyors, and other scientific and professional men, more particularly as it is published at an exceedingly moderate price.

MARY OF LORRAINE'S MINING ADVENTURES.—Soon after her appointment to the regency, Mary of Lorraine resumed her mining researches with renewed ardour, not only at Crawford Moor, but in other parts of Scotland. The Laird of Cockpen was employed by her especial precept and command, to pass and search the hills of Falkland, and the coal-trench of Linlithgow, "for coals and metals, and give account to her of the result of his investigations, 49*l.* Scots being allowed for his expenses." There are charges for a copper kettle sent to the English miners at Crawford Moor, 3*l.* 1*s.* By the price, it must have been a cauldron. Seven stones of lead were sent to them at the same time (August 24, 1554), to find the gold with. It is possible that, from the success of her mining adventures, Mary of Lorraine derived the funds that enabled her to clear Scotland from the debts with which her predecessor in office had embarrassed the realm.

Original Correspondence.

ASSOCIATION OF MINING ADVENTURERS.

SIR,—Every day's occurrence shews the pressing necessity of establishing a place where mining adventurers and other capitalists may receive *authenticated* and *disinterested* information respecting mines and other speculations of like nature. Your correspondent's (Mr. Harvey) proposal, if carried into effect, would remove many of the evils complained of. I have had several communications from adventurers and mine captains relative to the same subject, all expressing their great desire that something of the kind be at once established, so as not only to check the abuses in mining speculations, but also to furnish general information in all matters connected therewith, for the benefit of the public. I think Col. Asshecourt's suggestions would best meet the object in view; and from 500 to 1000 members, paying 2*l.* 2*s.* per annum, would form such an establishment. It must be made independent and unconnected with share dealing—furnished with geological and mining maps—minerals, models, and books—where all members may meet and receive useful instructions at all times, either by calling or by letter; and thus, by self-training, render themselves invulnerable to all speculations but the legitimate, and those only which may be carried on by responsible men of business.

I shall be happy to receive communications on the subject at my office, which is conducted on the principles above specified. EVAN HOPKINS.

Austinfriars, Sept. 26.

THE "COST-BOOK" PRINCIPLE.

SIR,—Since my last observations on this subject I have made further researches, to ascertain from what oversight or prepossession the doubt to which I alluded has arisen. My present views have not been adopted hastily, or without regard to all the materials for forming a judgment—a precipitancy which may be imputed to me on account of resuming my investigation, and by reason of the apparent want of confidence in those views to which I gave expression. No experienced lawyer, who reflects on the consequences of dogmatic presumption in legal opinions, will blame my caution, especially, as being a neophyte in mining doctrines, I was unwilling to place my knowledge in respect to this peculiar topic rashly in positive contradiction to your well-established experience. When it was stated under such authority that the exemption "was only a saving clause, to prevent the provisions of the Act in question from being diverted from their intended operation, and made the tools of interference with the working of Cornish mines, minerals, and *quarries*, under the Cost-book System," I could not but feel some reserve in taking up a position diametrically adverse to your suggestion; therefore, I may be pardoned for seeking confirmation before I should unqualifiedly assert, as I now do, that the doubt which I ventured to dispel in favour of extra-stannarial mining has no solid foundation; and that there is not, in my opinion, any necessity for those mining companies on the Cost-book Principle, which were considered in an anomalous position, by reason of their supposed exclusion from its advantages, to proceed to registration under the 7 and 8 Vic., ch. 110. I shall here attempt, as briefly as possible, to justify, in popular language, those assertions, with every respect for your opinions.

In very remote times in Cornwall, a practice of the Tinners prevailed to have their affairs managed by a Purser by the simplest form of account, and with reckonings at short intervals—not with a delegated direction, but with the whole body of those associated in the enterprise. This was, with the development of speculation, extended to associations comprising other individuals; and, further, to all mining adventures, as well as *quarries*. That was the Cost-book *Principle*, of which the precedent was by no means novel, as the germ existed from the earliest antiquity in continental mining, descending, with analogous observances to a recent epoch in many other states. Now let us see how it was applied to practice. There can be little doubt that this principle existed as a prescriptive custom long before the Stannaries' Courts themselves, and, therefore, could not be dependent on those courts in respect to any details subsequently introduced in connection with them. We find, indeed, that tinners working under this principle had their accounts audited in the Steward's Courts. Here is the grand argument which our Cornish friends, in their protective jealousy, urge to keep the exemption to themselves; because, forsooth, there are no stewards' courts elsewhere—"*argal*," no cost-book where there is no steward. That might be all very fine, if we never had the Cost-book Principle in practice save with Tinners' and Stewards' Courts; but our Dogberrys of the west forget that, taking them on their own ground, even in Cornwall other mines than tin had been for centuries worked on the same principle, as well as other metallurgic operations carried on; and the jurisdiction of the Stannaries' Court "over the matters connected with the working for, and purifying and smelting, of which lead, copper, and other metals and metallic minerals," had not been considered to extend, and *was not* extended till 1836 (6th and 7th Will. IV., cap. 106). And, furthermore, which places the matter beyond all question, there were also *quarries* worked upon the Cost-book *Principle*, over which that jurisdiction has not been extended even to the present day. How, then, can it be seriously argued that the *principle* upon which was engrafted a corrective judicial control in an isolated instance, relating solely to tin mines, can be dependent upon the existence of remedial *practices* which had [illegible] stantial or legal application to the system in the concrete, excepting by [illegible]terposition of special legislation? Certainly not; and we must, therefore, be allowed to characterise this pretence, that the *principle* is inseparably wound up with the Stannaries' Courts, as wholly nugatory. This is still assuming as, under a misconception, I did in my last, that the Cost-book Principle had never travelled beyond Cornubia, a notion which I shall now shew is altogether *in nubibus*.

Desirous to leave no source of information unexamined, I canvassed the opinions of some of our most experienced miners. Several asserted your view, because it was *yours*, without further justification save that which I have already mentioned. To this submission to an editorial dictum, I must, therefore, exclusively ascribe the prevalence of scepticism with regard to an authorative decision, which should have enjoyed greater influence, as emanating from the only officer competent to raise a question on the point. I refer to the opinion of the Registrar of Joint Stock Companies, under the very Act in question—an opinion which I now discover has been for several years promulgated. Your own columns declare that "the Registrar under the Act had given his opinion that this clause (63 sec.) extended the principle beyond the boundaries of Cornwall to all parts of the kingdom;" and you added "but on what grounds we cannot conceive: it certainly does not extend the jurisdiction of the Stannaries' Courts." The grounds are obvious, as we shall presently see; but allow me to say that the above *must* be an incorrect version of the official view, which will be evident from what I now state.

Instead of this principle being limited to Cornwall at the time of the passing of the 7th and 8th Vic., cap. 110, there can be no doubt of its being extensively adopted in Wales. Lest any one should question this fact, I shall cite examples. I have it from the authority of a gentleman, who managed mines both in Cornwall and the principality full 17 years ago, that there were *many* mines in Wales so conducted. Amongst others, the Lisburne (lead) and Goginan (silver-lead), in Cardiganshire, were worked on a cost-book from the Cornish model of the Great Consols—with the accounts of which their's were identical in form; and I can refer to the Halkin and Mold Mines, in Flintshire, and several others, as also governed by that principle; consequently, it must be inexact to say that the Registrar considered that the 63d section of the Registration Act "extended the principle," when, in fact, that extension had been the natural effect of the progress of this branch of industry. We should rather interpret it thus: the Act having found the principle enlarging to maturity, has made an exception in favour of mineral operations and *quarrying* wherever that principle is fairly adhered to, according to the circumstances.

If it be the fact, as indisputably it is, that the Vice-Warden's jurisdiction *never* has been established over *quarries* within or beyond the confines of the duchy, then it must be clear that the Legislature, in excepting "mines, minerals, and *quarries*," never meant to limit that privilege of freedom to any condition of a mining, *smelting, or quarrying* co-partnership, subject to the Warden's jurisdiction, nor within any boundaries coincident with the extent of Cornish laws. The reason of the Registrar is, as I have said, obvious, because the words of the enactment are universal, expressly in favour of the *principle*, and by no mistake or contortion can they be restricted to a system, or practice, combining peculiar details or remedies with it. Oh, but, it may be said, there can be no right without a remedy. That is not universally true. However, here the objection does not prevail. There would be adequate remedies in a Court of Equity for the protection of all rights and the redress of every wrong. True, it is an expensive resort; but *cost* is not the question. The extortionate fees of Chancery and its solicitors may be a motive for establishing, in *all* mining districts, courts on the principle of the Stannaries' Courts, as it was for the enlargement of the influence of those courts in 1836; or for the application of the jurisdiction of the County Courts, with modifications suited to such cases. But the principles of the cost-book cannot be affected; and I feel on longer any hesitation in advising all mining associations, whose adventurers may be content to abide by it, that its rules and regulations, strictly enforced and honestly obeyed, afford the very best protection and encouragement to the mining interest,—whilst its machinery, with ordinary care, will act, as I presume, fearlessly to protect, with superior efficacy, to the ponderous dispositions of those statutory provisions under which the shareholders are ever at the mercy of a set of Directors who, from preponderating personal influence, frequently secure the power of managing the affairs according to their interested views, to the prejudice of the general welfare of a company. It is devoutly to be hoped that in their marplot anxiety for suppositious reform, the Whigs may not be induced to lay their meddling hands on this last heirloom of commercial simplicy which has descended to us from our ancestors.

I have avoided giving the purely professional details of my investigation, which would mystify the general reader. However, lawyers in going over this

same ground will see other arguments than those I have used; and, if not obtrusive, I may return hereafter to the subject.

In conclusion, let me ask what do we require beyond the opinion of the Registrar? Who else has the right to dispute the option of mining companies in accepting their constitution under this principle, whereby just limits to responsibility are established, in preference to registration, which is justly regarded with general dislike? *En passant*, I will add that if we are to "go-ahead" in the commercial race with other nations, which now, even at the start, is working up to an arduous struggle, that Act of 7 and 8 Vic., cap. 110 must be altered; especially in respect to the responsibilities of those who desire to invest capital on the condition of a determinate liability, so as to avoid the ruin which our modern legislative system has entailed on thousands.

September 24. JURISCONSULTUS.

ILLEGITIMATE MINING.

SIR,—Several letters have appeared in your Journal on this subject. Permit a Cornishman, who is conversant with most events that are transpiring in the mining world, to add a few lines on the same subject. A great and general complaint prevails amongst the sharedealers of the present want of business. They have little to do; there is an unwonted deadness in the market, say they. So far as *legitimate* mining is concerned, this may not be a bad symptom, for a great business in buying and selling prevails only during a mania; but, as to the present dulness, are they at a loss to account for the cause? I think the cause is very apparent, in the fact that speculators have been grossly imposed upon by some of the brokers and mine agents, who are not satisfied with the honest mode of getting rich; they want to cut the way short by unfairly extracting the money from the purses of the credulous. In order to effect their object they draw up prospectuses, full, or partly so, of falsehood; and thereby, and by giving you false quotations of prices of shares, get them up to a high premium, when there is really nothing to show but, perhaps, a good stone of ore obtained from a neighbouring mine, or a lease of the ground. I have much wondered how it happens that men so pre-eminently selfish and sharp in some respects as the Londoners are known to be, should allow themselves to be deceived, as many of them have been.

I am an advocate for mining in a *fair way*, but I utterly detest the mode by which some persons have acquired large sums of money. The mines for which hundreds of pounds have been paid are, some of them, really worth nothing. I am happy to say that I have never fingered cash obtained by any such means, nor have I attempted it; and, rather than do so, I would remain for ever a poor labourer, in the position which I now occupy. I would advise every person who has a little spare cash, designed for mining investment, to take care to *acquaint himself with the 'mine before he invests in it.* If this precaution is not taken you deserve to suffer for your indiscretion. Ask some local agent of respectability to inform you of his opinion respecting it. Do not take the word of every broker who has a mine to sell. By mining *cautiously*, you stand a good chance of a handsome return for your outlay, *otherwise* you will probably have to censure yourself for not taking warning from A CORNISHMAN.

Queen's Arms Hotel, Sept. 25.

PROPOSED JOINT-STOCK COMPANY FOR GIVING ADVANCES UPON BLACK TIN.

SIR,—As no other party has as yet ventured to support or refute the doubtless well-intended communication of "A Shareholder in *a Tin* Mine," dated the 4th inst., allow me a short space in your Journal to state that I am a shareholder in *several;* and that I have witnessed the attempt and seen the downfall of such projects as he now propounds four times during the last 35 years: three of them, certainly, were abortions, conducted by parties ignorant of the business, Having some *spare* capital (*but not enough*), they could advance on black tin, and purchase it while their *tin* lasted; but when they were obliged to sell, they were glad to take whatever price the smelting companies chose to give them. We have three first-rate smelting companies' works in this place; a fourth one was completed 10 or 12 years ago, by parties who well understood the business, and had plenty of capital. They benefitted the miner for a year or so: at last (leviathans as they thought themselves, and trumpeted forth as such in your Journal), they succumbed to the *trio juncta in uno*, and shut up their works at an immense loss; which scores will have to mourn to the very last period of their existence—in fact, it ruined some of the principal merchants in the west.

What better result has "A Shareholder" to offer? He states he is so in "A Tin Mine;" this leaves me to fancy him a person not sufficiently acquainted with the subject in all its bearings. He may know that the sale of the produce from his mine does not yield him the profit he anticipated, but does he understand the tin trade? Any person can buy, but the selling day must at length arrive. Is he prepared with a market; has he any customers? Does he suppose the present smelters would quietly allow him to supply theirs, and take the trade they have long been established in out of their hands? I tell him they would not: they will meet him as they have those I have alluded to,—give the miner a higher price for a time, in order to compel him "to pay for his whistle:" his purchases thereby will not be very extensive; and when he is ready to supply his chance customers, down they will drop the price of black tin "under prime cost;" and then where is his profits? To conduct his business, he must have works, if smelting is intended: those here of the late "Number Four" have been already secured by "The Truro Tin Smelting Company," and are well adapted for the business in all respects; the local situation proved to be good, and a public company on the eve of working them. They are merely waiting to start on a firm footing, as vendors of the tin when smelted by them—*i. e.*, they are establishing agencies abroad and at home, like prudent men of business, before they commence competing for the purchase of black tin from the mines.

They know they can buy, and wish to be assured they can sell. When they commence, it is to be hoped the "unfortunate shareholder in a tin mine" will be sufficiently satisfied, and have no cause to propose opening such a pawnbroking sort of relief as he now contemplates.

I admit "smelters have been making large profits"—it is what the "unfortunate shareholder" wishes to gain from the tin mine he is interested in, and nothing more than he would hope to derive were he to become a smelter, or hold an interest in the Black Tin Money-lending Society. We all strive to make "large profits" from whatever we embark in. They, having the means and power of doing so, naturally take the advantage of it; and who can blame them? They are too powerful a party, and too long established in the trade, to allow any one "to walk over their course;" and, as able generals, up to all the tactics, are quite prepared at any time to meet parties who may attempt to reconnoitre their camp. They will be found upon their guard whenever an endeavour is made to invade or "counteract" them.

I have said the miner would benefit for a time—so he might; but when the smelters have their opponents under their feet (as they always hitherto have), the day of reckoning comes, and down goes the price of black tin, to repay them for the expense of crushing their opponents; so that the question becomes a serious one. The scheme should either be well concocted, so as to ensure a permanent footing, or better let matters rest as they are: pigmy attempts are ridiculous, and sure to be failures.

Supposing then that, as a shareholder proposes, "a joint-stock company should be formed for the purpose of giving liberal advances to the miners who have not the means of holding their black tin,—say, for a period of two, three, or four months,"—and that they have ample command of capital to carry out the object. They would have, doubtless, a paid board of directors, with fine offices in London, together with secretary and clerks. In Cornwall, there must be a managing agent, cashier, clerks, assayers, and porters, to attend to the operations there. Large suitable premises, in a very central position, to receive the tin in pledge, otherwise, more than one will be necessary. These alone would entail a very heavy expense, which, tacked on to the charge for interest upon the advance all which, by hook or by crook, although paid by the miners, would take off the cream from the imaginary profit to be derived by the proposed "Joint Stock Company." The carriage of black tin to and from the depôt would itself be another formidable item. I could enlarge, but prefer waiting to learn how your correspondent gets through the labyrinth I have propounded to him.—ARGUS (of Truro): *Sept.* 25.

CAE-GYNON MINE, CARDIGANSHIRE.

SIR,—Being a reader of your valuable Journal, I have long noticed the very sanguine reports from this mine, and wonder why we have not seen some of her riches brought into the lead market. I find that operations were commenced here in December last, and a steady progress has since been made. Your Journal of Feb. 22 states that "a new lode has been met with in cutting out a wheel-pit, valued at least 10,000*l.*" June 21 report says, "we shall sample monthly, and have about 10 tons this month." July 19—"bargains still improving, profit at least 100*l.* per month; but, owing to the long drought, had led them to go to the river Rhydol for a new water-course." August 16 reports, "400*l.* to 500*l.* worth of ore on the bank; returns and profits good, and the water-course from the Rhydol to be made shortly."

Now, Mr. Editor, come the facts: I last week visited this celebrated mine, and find that the noble quantity of 4 tons had been cleaned and sent to Aberystwith, and about the same quantity ready for the crusher, with about 6 tons on the bank, or at the mouth of the adit level. Now, I should fancy with a great and valuable lode—say, at least 10,000*l.*—that even this quantity might be broken and dressed in one week from the new lode—to say nothing about the north one, which all reports say yields 1½ ton per fathom and upwards. I suppose we must think no more about the long promised water-course from the Rhydol, but wait patiently for rain, when we shall expect Cae-Gynon, after so long storeing up her riches, to pour them forth, as Egypt did of old. No doubt this may meet the eyes of some of her shareholders, and if any doubt the veracity of my statement, I trust they may be induced to come and see for themselves. Travelling now is very cheap, and oftentimes 1*l.* is better spent by so doing, for personal inspection, than to trust too much to sanguine reports, especially when the regular sales are not carried out. It is not my intention to trouble you further at this time, though a great deal more might be said, but will leave it for a future day.—FAIR-PLAY: *Aberystwith, Sept.* 24.

WHEAL CREBOR—MINERS' PRIZES.

SIR,—The steam-engine at this mine was moved off last Saturday, when we had Mr. Murchison here, who, I am told, stated, at the dinner which was given at the Bedford Hotel, his intention of offering prizes to the underground men for the most practical report on the position and prospects of the mine, each man to have worked in the mine for at least a month immediately previous to giving in his report, and to give reasons for his opinions; and the judges to be some of the best acknowledged mining authorities. I think it right you should be aware of this fact, as it shows Mr. Murchison's desire to promote legitimate mining, and to improve the mind of the working miner, who will thus be encouraged to reflect on Nature's laws, and to become better practical men, and more fitted for holding responsible situations of management. I am also told that Mr. Murchison stated that if he succeeded in this experiment he would probably extend it further, and that he hoped others would follow his example. I hope they will do so also, as I am

Tavistock, Sept. 25. A SINCERE WELL-WISHER TO MINING.

MINING IN DEVON.

SIR,—Many communications have appeared in your Journal from time to time, complaining of the exaggerated reports which are occasionally sent to you for publication; but as these have been of a general character, without naming particular instances, they have not had such an effect as the letter of your correspondent, "An Old Tavistock Tinner," is likely to produce.

I am not sufficiently acquainted with the Peter Tavy and Mary Tavy Consols to give an opinion as to whether the reports of Captain Heath have been borne out or not; but, as a general rule, it is evident that the public would be greatly benefitted if persons residing in the neighbourhood, who are acquainted with mining, whenever they see a report that cannot be substantiated, would follow the example of the "Old Tinner," and fearlessly state their opinions in the columns of your Journal. By way of illustrating what I mean by exaggerated reports, I will give an instance or two from a long list of the same kind which have appeared within the last 12 months.

A short time since a mine was brought before the public by the name of Wheal Gate-Post, which was stated to be such an extraordinary concern, that it would bear comparison with the Burra Burra and Devon Great Consols; and notices have lately appeared, stating that several lodes of the most promising character have been discovered—that the country in and about the sett is proportionately wonderful—that they expect every day to cut more lodes, which they believe will be superior to those already discovered—that the Great Wheal Maria lode is intersected at a very convenient point within the limits of this little "El Dorado" by the Great Wheal Friendship cross-course. It must not be omitted that the water is so highly mineralised that a candle immersed in it will become green in 24 hours.

Some months ago, it was reported on two occasions—I presume by the accredited agent—that there was a lode of tin at Lamheroe Wheal Maria, worth from 100*l.* to 150*l.* per fm.; and subsequently it has been stated that thousands of pounds worth might be seen at the surface. What is the result? The necessary dressing apparatus has been erected, and the report, a few weeks since, states that the tinstuff is not turning out so well as was expected, but it is hoped the arsenic will pay for dressing.

I have selected the above two mines, not for the purpose of depreciating their actual value, but merely to show that every agent should be particularly careful, before he ventures to write such sanguine reports, that his statements are likely to be borne out by the facts, the more especially as they are the principal guides to distant capitalists.

The Lamheroe Wheal Maria has been worked for several years by as spirited a company as ever came into this county, and it is the general wish that their perseverance may meet with the reward it deserves.

The Wheal Gate-Post is a young mine, situate on the borders of Dartmoor, at or near the junction of killas and granite, and several mine agents who have inspected it have expressed their opinion that it is a very fair speculation; it is, therefore, the more to be regretted that such reports should have been published,—certainly before the appearance of any authenticated prospectus, with the names of those interested attached.—A. P.: *Tavistock, Sept.* 22.

DEVON BURRA BURRA.

SIR,—The facts published in your "Mining Correspondence" of this day will be a sufficient reply to all those *anxious* and *truthful* inquirers, who would have the mineral wealth of this mine resolved into a solitary "gate-post."

London, Sept. 26. THOMAS HARVEY.

WHEAL TONKIN—WHEAL DUCHY.

SIR,—Mr. Ennor's remarks on Wheal Tonkin will have but little effect: the shareholders know him well. As to Wheal Duchy, I believe it is two miles from Tonkin, the latter being situated at the west foot of Kit Hill, and the lodes are opened for 100 fms. in length. We have only one shaft sunk to water level, and that only 5 fms. deep, from which stones of black, grey, and yellow copper can be *broken*, for any honest practical man to inspect any day, by writing to the agent on the mine a day or two previous, so that the water may be taken out. If Mr. Ennor would confine himself to his own business, perhaps he would not find himself so frequently in error as he now does. The mines he speaks so slightingly of, are actually working at a profit, and yet he has the temerity to condemn them. What does he think of Hingston Down now? A hard granite end driving on tribute, and at a profit? I think the rattling of slate has disturbed his brain, and somewhat baffled his reason. I value no man for his mere opinion, but esteem him according as his life corresponds with the rules of justice and honesty; for a man's actions, not his conceptions, render him valuable.

If Mr. Ennor be the same that I am informed of, he was once at Treburget Mines;—how far he acted with economy there, is best known to himself and employers.—A TONKIN ADVENTURER: *Callington, Sept.* 25.

WHEAL TONKIN.

SIR,—In your last Journal is inserted a letter from Mr. Ennor, respecting his visit to this mine, which, as captain of the same, I feel justified in answering, and should feel obliged if you would give it a place in your valuable Journal. He says in his letter, "I found a few pits and two shafts sunk to about the water level, but am not aware what they are looking for, whether tin, copper, or silver." I own I am not much surprised, when I find this to be from the pen of a slate quarry man, bred up to it from his youth, and having no practical knowledge of mines or mining. Notwithstanding, if Mr. Ennor will come fairly on the mine, and bring an unprejudiced experienced man with him, I will break black and yellow ore from one of the lodes, 6 ft. wide, of an excellent quality. As to silver, should there be any, I confess it is right to keep it from the sight and fingers of the many lurkers in secret. It appears, since Mr. Ennor has left the slating department, a deranged notion has got into his brain; for a man who fancies he can spy into the centre of the globe, and see the junctions of all the lodes at one view, also plunging head-foremost into volcanos, to explore their size, and depth in boiling lava, to inform the enquiring world the nature and course of their convulsions;—I say, men of this cast may be applauded by some of their silly votaries, but laughed at by men of practical and sound judgment. Mr. Ennor's letter may poison the minds of a few unacquainted with this valuable sett, but cannot shake confidence in any practical miner who has once been on the ground.—L. RIPPON: *Callington, Sept.* 24.

PETER TAVY AND MARY TAVY MINE.

SIR,—Having seen a letter under this head in your last week's Journal, wherein the writer has made use of my name (no doubt with a prejudicial intention, either to some one in the adventure or myself), it behoves me to make a few remarks, although I much object to answering anonymous communications. In my letter of the 2d of August, describing some stuff mixed up with the tin, perhaps I might have gone too far in stating it was the best tin mine in Devonshire, which was from a report I had heard, and not from my own knowledge. I know the managing agent, and have seen his reports, and I should be glad if one or two agents would take an example by them. I was at Peter Tavy about four weeks since, taking a tracing from the parish map, and on my return to this place I passed through the mine: I handled and examined the tin-stuff spoken of by the "Old Tinner," and if that may be called an inspection, I see no cause to condemn the mine from that heap of work, but rather the reverse. In fact, you will not go into many mines and see such large stones of tin. In reference to the mine underground, perhaps I may take the "Old Tinner" out of his element, for I was always of an opinion, that that lode will produce copper in depth, and I have been watching the change of the stratification under the Tor.—W. HEATH: *Wheal Castle, Sept.* 22.

WHEAL ZION.

SIR.—Being in the neighbourhood of this mine last week, and observing in your Journal that information respecting it was asked for, I beg to state that, as far as I saw of the lode, it is a splendid looking thing, very large, and for the depth (being only 12 fms.) carrying ore of good quality, with every prospect of its becoming still richer in depth, and in greater abundance. So far as this goes, I must congratulate the shareholders in possessing such a valuable property, and one which, if well managed, will pay them well for their outlay. It is also stated they have purchased a large portion of the adjoining sett to the west, through which their lode runs, their western workings in Wheal Zion being close to their western boundary. This shows at least the adventurers have their eyes open to their own interests.

Now for their operations on the mine. In one field I saw a very large account-house; and in the adjoining one six small shafts—three of these so close together, that a person might jump out of one into the other. This to me is a new feature in modern mining, as I consider one large shaft on the course of their lode would be worth more than all the rest put together. The sooner a steam-engine is erected, the sooner will the adventurers reap a profit, as the water appears to be very quick in their shafts, even at this dry season; and contrary to the opinion expressed by their agent, it does not appear the adjoining mines have drained them. The pile of ore raised from so shallow a depth, and which I saw at the surface in course of dressing, augurs well for the productiveness of the lode deeper.—MINERALI: *Cornwall, Sept.* 21.

WHEAL ZION.

SIR,—I have no interest in this concern, but yesterday I visited the mine, and was truly surprised to see the ore at grass and the quantity daily coming up, rich also in quality. The sett is 240 fms. long. It is true they have lost East Zion, but it is not true that they have bought the Calstock sett, through either and both of which this very valuable lode passes. East Zion sett is about 350 fms., and from thence over the river the same lode has been opened upon in the Wheal Russell sett, and looks exceedingly well there. The Russell party have 600 fathoms on the run of that lode, and from what I can hear from first-rate miners, they have the best end of the stick. Let those who doubt what I have here stated go and see for themselves, and no longer listen to statements likely to damage a fair and legitimate undertaking: 20 tons of ore were then being carried away to be sampled, and 30 tons more at grass, from only three months' work, and principally occupied about surface work during the whole of that time. The greatest portion of the 50 tons had been raised in a month.—A MINER: *Exeter, September* 20.

EAST WHEAL RASHLEIGH.

SIR,—The fluctuation of mining property, especially speculative stock, makes it an impossibility of keeping a correct list of the actual value of the shares. It has been under the consideration of the greater portion of the mining body for some months past to devise some means to establish a regular market for mining shares—so far, however, it has failed. The public, therefore, look to you, as the medium of information, and to prevent abuses of this kind. To do this, it devolves on you to inquire as to the responsibility of your correspondents before repeatedly inserting these communications, after caution has been given you. I am led to make these remarks, from the fact of having repeatedly complained of the continued alteration in your list of the East Wheal Rashleigh shares; some evil-disposed person appears to have no other means of throwing discredit on this little concern; but this (for it is well known to those who have become shareholders, that not one penny of expense has been incurred, no office rent to pay, and the only paid servant of the company is the purser, with his 2*l.* 2s. per month), they have endeavoured by their scheming to put a high price for business done, thus making it appear a jobbing concern by getting premiums, and continually altering the price paid up and down, as will be seen by your last Journal, when the business done (or price) stands the same, and the price paid raised to 8s., at the same time it being only 3s.—showing the shares to be 3s. discount.

It would be only just, were you, as a public journalist, to give the names of those parties who, for no other reason, endeavour to damage concerns projected and intended to be carried out honestly.—THE PURSER: *Old Broad-street, Sept.* 24.

WHEAL MARY EMMA.

SIR,—Referring to the notice in your Journal, stating that Capt. Heath, without intimation, had been discharged, and that, upon application to the purser for his arrears of salary, he had been referred to the company's solicitor, &c.; as purser of the mine at the time, I must trouble you with the following explanation:—Capt. Heath had a written notice in October last that his services would not be required after the end of November, the change in the agency having been discussed at a meeting of the adventurers at which Heath was present. The following resolution was passed and entered in the cost-book: "Resolved, that the subject be referred to the purser." Upon Heath asking forgiveness, urging the injury his character would sustain from being discharged from the situation, he was allowed to remain, with an understanding that he should leave the mine at any time without further notice, unless he gave better satisfaction, and at the same time to give him an opportunity of finding another engagement. Now, between this time and his final discharge, I am informed that he not only sought other employment, but was appointed and acting as the agent of another mine. After leaving Wheal Mary Emma, he made a very insulting application for wages, &c., said to be due to him, and at the same time threatened to put the case in the County Court, unless paid within three days, in which case he should increase his demand by charging salary for another two months; but, after deducting the calls due on shares standing in his name, it appeared that no salary was at that time due to him, and in consequence of his insulting and abusive conduct, and continued threats of legal proceedings, he was referred to the solicitor, who, by the way, was instructed to meet any demands solely on their merits, and not to take any technical or legal objections—Heath himself having raised the question of Chancery. The committee, or deputation of shareholders who visited the mine "on the eve of his discharge," although they expressed themselves satisfied with the mine, did the very reverse with respect to the captain. And as regards the quantity of tin in process of being dressed, Capt. Heath, in a report to the adventurers, after having carefully examined the mine, promised to raise 10 tons of tin in six months; and as only two of these 10 tons have yet been sold, if Heath's judgment is of any value, there should now be a large quantity on the floors; and, after the sale of tin in February last (which one of the smelting-houses declined to tender for, on account of being so imperfectly dressed, and the purchasers stated would have fetched 10*l.* per ton more had it been better cleaned), he reported "I hope to have another parcel soon to follow;" but since Heath's discharge nothing whatever has been done towards dressing tin, or ascertaining the quantity at surface. The adventurers have been waiting a reply from the Duchy of Cornwall to an application for a reduction of dues, which there is reason to expect will be granted, and in future the dues will, in all probability, be 1-40th.—J. DIAMOND: *London, September* 22.

A MINER'S VISIT TO THE EXHIBITION.

SIR,—Though from time to time I had read in the *Mining Journal* the progress which foreigners had made in mining, I was not fully aware what formidable competitors they and our own colonists were, until I went a few days since to the Crystal Palace. My first visit was made to our own productions, and although much has been sent from the mining districts, yet I think more might have been forwarded; several models of coal mines, however, are to be seen, two of which, those of Heaton Colliery, and the St. John's Colliery, Wakefield, particularly attracted attention. The model of the tin smelting-works of Messrs. Bolitho I consider perfect, as well as those of the Sheffield Steel-Works; and, as a Cornishman, I cannot but regret, although partial specimens of our machinery and tools have been sent, that a complete model of a Cornish copper mine, with stamps, separators, and steam-engine, was not forwarded; and I must confess that the colliers in every way have surpassed us, even outside the building, though we have, it is true, serpentine and granite. Among the models sent by them is one which at the present time particularly deserves mention, being a section of a Staffordshire coal pit, with apparatus for preventing explosions in coal mines—this being the invention of Mr. Peter Cawley, of Soho, near Birmingham. Mr. Sopwith, gives some good illustrations of the manufacture of lead, and Messrs. Bankart of their process of copper smelting, as practised at the Red Jacket Works: these, however, are but partial, and it is to be deplored that copper miners and smelters have not combined to send a good illustration of the manufacture of copper in all its stages. This, however, is not to be expected; when they have been so adverse on other and more important points, it is, perhaps, too much to surmise that they would agree in this particular. The student in mineralogy will find himself materially assisted by a view of Mr. Tennant's cases, and the crystallography which is in their immediate neighbourhood. From thence I proceeded to the Canadian department, and observed in there, and Nova Scotia, iron, steel, tin-plates, &c., all manufactured in those colonies. South Australia was my next destination; and here I must say I was totally taken aback by the rich specimens of copper ore which were produced from the Burra Burra Mines, as well as the drawings which depicted that flourishing settlement. Here I observed a piece of cake copper, and the thought suggested itself that as they were so much nearer to India than we were, as their production increased they would not only compete successfully with us in that market, but in time completely forestall, and compel us to abandon it. In five years we are told they have raised 56,428 tons of copper, of the money value of 738,108*l.*, and in this prosperous state of things there is no prospect of a diminution—they employ now 1000 people. On reflection, however, this idea was tempered with the knowledge of the rapid progress of emigration, and the conviction that if they increased in the same ratio as they had hitherto done, a great portion of the metals they produced would be consumed in the colony. We have yet to see what influence the recent discovery of gold will have on the Australian continent. The principal minerals and manufactures to be seen in India were iron and steel. The United States are, through the New Jersey Exploring and Mining Company, rich in zinc, and the manufactures from that useful metal. The mass of native copper, 245 lbs. in weight, from Lake Superior, would show that in that district it is not an uncommon article. In front of these is a valuable collection of minerals, some of them very scarce, which have been collected by the research and industry of Dr. Feutchwanger. From America I steered my course to Austria, inspected her Styrian iron, and the copper and coals which she produces: as this country has but one maritime outlet for her products, and the carriage of ores and metals are expensive, these are, I presume, principally consumed in her own provinces, or exported to the countries which lay immediately on her frontier. Some good ores of copper are in Tuscany; these, however, are but inconsiderably worked; however favourable the native Governments in the Italian states may be to the employment of foreign capital and the encouragement of strangers to settle in their domains, the Austrian Government, with its jealous and iron rule, crushes and smothers any liberal feeling they may entertain. From absolute Austria, to despotic Russia, was a natural step: after admiring her malachite doors and vases, the specimens of iron and copper which she presented assured me that the Czar's dominions had reached a high position in metallurgical development; in particular, I was struck with the quality of the iron produced in the Catalan forge at the iron-works of Khamounitsky, in Viatky, the native copper from the Bogoslovsk Works, the gigantic specimens of malachite exhibited by Count Demidoff, together with the copper in ingots, cakes and sheets from Orenbourg, in the district of Sterlitamask, and the damask and cast-steel of Zlataoust. Prussia exhibits a fair proportion of minerals, principally lead, silver-lead, zinc, and iron, the castings of the latter fairly supporting the fame which these articles of *vertu* have obtained: taken on the whole, the ores from the Brandenburgh, Silesia, and the Rhine provinces, we may presume as average specimens. In coarser manufactures we are superior to any other nation; a single glance at the culinary utensils of the Zollverein is sufficient to indicate this. I was surprised that the Royal College of Mineralogy at Freyberg, so rich in ores and metallurgical processes, as well as its great rival, the School of Mines, in the Hartz, had not forwarded to the Great Exhibition some of the models and minerals in which they are so rich. An exemplification of their various smelting processes, together with the theory of the separation of the several different and adverse metals would have been of great interest and utility to our mining community, as well as their modes of dressing, which, in most cases, are perfectly dissimilar to our own.

From Saxony (whence so much was expected) we have only cobalt, in the different manufactured stages, nickel, and metallic bismuth. The little Duchy of Nassau has contributed a good series of minerals and their products. Large quantities of manganese are said to be raised there—as much as 20,000 tons annually. The specimens of nickel from the Isabeilen Hutte Smelting-Works, near Dillenzberg, with its preparations, are of a novel character to us: 9000 people are employed in these works, and about 45,000, or one-tenth of the population, are engaged

in mining products in Nassau. Of the iron ore raised, large quantities of it are exported to the coal districts of Germany and France, to improve the inferior kinds there. Nassau likewise produces copper pyrites at Dillenzberg, lead ore at Oberlahnstein and Ems; its earth covering over 100 English square miles (the produce of this, however, is only about 60,000 tons annually), heavy spar, or sulphate of barytes, several species of marbles, slates, fullers' earth, and clay. The small and fertile Belgium is rich in specimens of iron, coal, galena, and zinc, the latter principally from the works of the Vieille Montagne Company, at Liege, among which the colossal statute of her Majesty, together with several other objects of art, are particularly to be noticed. M. Eloin, of Nassau, and M. B. S. Museler, of Liege, exhibit models of safety-lamps for mines, which are somewhat different to the English; whether of more practical use I will not presume to decide. A parachute for mines, or as it may be termed, a safety-cage, by M. Vauder Hecht, of Brussels, appears to me, in its mechanical principles, safe, efficacious, and not easily deranged. The best samples of iron and its ores are principally from the neighbourhood of Liege. Mr. Cockerill fully bears out his well earned reputation in machinery: he has a model (on the scale of 3 in. to the *foot*) for lowering and lifting miners without danger or fatigue. If this could come generally in operation, what an immense waste of life and premature decay would be spared in Cornwall and Devon.

France, though richest in artistical display, exhibits some fine machinery. The mining products are but scanty—though from the specimens of copper ores sent from the Mouzaie Mines, Oued Allelah Mines, and the manufactures of iron from the Ain Morka Works, in Algiers, when that country shall have become tranquil, so that industrial pursuits can be pursued with safety, and capital invested with security, an increased development may be anticipated. The specimens of iron from Switzerland, as well as the different processes adopted for its reduction, are merely to be noticed, inasmuch as they differ from all others: silicates appear here only to be smelted. Greece displays its far-famed Parian marble, and various specimens of steatite. Spain is rich in mineral treasures; and her cinnabar, lead, copper, iron, as well as coal and marble, shows that it is an important mining country—in fact, from the different localities, it would appear that minerals are disseminated all over the kingdom. It seems that much mismanagement must have taken place, both at home and abroad, before so many English companies could have been ruined there, or made themselves the "bye word" of the Spaniards, as hitherto has been the case. Portugal has some fine marbles, and send us some sulphate of iron from Algoza, tin, lead, and copper. None of the mines, with the exception of iron, are worked in this country; or if so, they are so unimportant that they are scarcely known. Proceeding northward, Sweden has iron from Helsefors and Osterby, while the steel produced here is of the first quality; the cutlery manufactured from it seems of a very superior description. Some good specimens of cobalt in its varied dressed stages, from Tunnaberg, are shown. In Norway, we have the silver from Kongsberg, chromate of iron in its raw state, and the chromate of potash from Drontheim. Roraas has sent a rosette of copper; but none of the ores, or the different processes by which they are manipulated, which is to be regretted, differing as they do so materially from ours. From Tunis, we have lead, copper, and iron from the mountains Wargha, Gerisa, and Ragba. These are some distance from the coast, and, probably, not worked. The rich states of South America have contributed but little. Some specimens of gold, silver, and copper from Chili; but they are more distinguished from their size than their value.

I should not have troubled you with this long communication, but, since my return home, I have been asked by my friends what show the foreigners have made in mining? In order that "one and all" may know, this account has been penned, which I trust to your usual kindness to insert; so that my friends here, and your readers generally, may be able to form an opinion of what has been shown at the Crystal Palace.—A MINER: *Redruth, September 2.*

TREVOOL COPPER AND TIN MINE.—This sett, on the subject of which we had considerable discussion in the *Mining Journal* in May last, includes the old Trevool Mine, with parts of Boteto, Hallegan, and Halgarrack, and is situate in the parish of Crowan, to the west of South Frances, North Basset, &c. Five promising lodes are said in the prospectus to have been already discovered, from 7 to 2½ feet wide. One of these lodes was worked upon about 24 years ago, when 6000*l.* worth of copper and tin was raised. It is now proposed to resume the working of the mine, and effectually explore the several lodes—to erect a 66-in. cylinder engine for the old engine-shaft, already down 78 fms. under adit—to clear and open the mine, and thoroughly explore the whole of the lodes—to do which it is estimated that about 5000*l.* will be required, although it is fully expected returns will be made before that amount is expended. It is divided into 1024 shares, on which calls will be made as required, at meetings of proprietors. The mine is evidently thought well of, as among those gentlemen who take considerable interest in it, we may mention H. Willyams, Esq., M.P.; P. J. Vivian, Esq.; J. S. Bickford, Esq.; G. Smith, Esq.; H. S. Stokes, Esq.; Messrs. Job and Co., Truro; and agents of Dolcoath; with many others.

WEST WHEAL ROSE SILVER-LEAD MINING COMPANY.—We have before us the prospectus of this company, which is divided into 2048 shares of 8*l.* each. The sett is situate parallel with East Wheal Rose, and in the neighbourhood of Penhale and Wheal Golden Mines. An adit has been driven 20 fms. in an easterly direction, on a promising east and west lode, which has been intersected by a north and south lode, the latter driven on 15 fms., in which a rich course of silver-lead ore has been discovered. Three lodes are already laid open, and it is expected many more will yet be found; and the promoters are so confident of the value of this mineral ground that they earnestly solicit inspection before parties join the adventure. There is a large stream of water passing through the sett, equal to all the purposes of crushing and dressing the ore for market. A report from Capt. T. Hooper fully bears out the statements in the prospectus, and it is expected that 1*l.* per share will be sufficient fully to develope the merits of the undertaking.

MINING APPOINTMENTS FOR OCTOBER.

1. No copper ore sampling this week. South Tolgus account, on the mine.
2. Ticketing at Pool, Tincroft, Wheal Seton and other mines.
3. Pay at Wheal Basset, Tincroft, East Pool, and Wheal Ellen.
4. Pay at Devon Consols, Par Consols, Holmbush, Perran St. George, Polberro, West Jewel, Dolcoath, Stray Park, and Trannack and Bosence.
7. Wheal Basset account, on the mine.
8. Treleigh Consols annual meeting in London. Devon Consols and other samplings.
9. Ticketing at Redruth—Carne Brea and other mines.
10. Stray Park account, on the mine; North Pool setting; West Caradon and Gonnamena pay.
11. Pay at Alfred Consols, West Treasury, East Crofty, Phœnix, United Mines, and Wheal Adams.
13. Wheal Seton account on the mine.
14. Tywarnhayle account. South and East Tamar bi-monthly meetings.
15. United and other mines' samplings.
16. No copper ore ticketing this week.
17. Pay at Wheal Buller and Levant. First annual meeting of the Craig-y-mwyn Lead Mines, Oswestry.
18. Pay at Great Consols, Comford, Seton, Cook's Kitchen, Pendarves, Fowey Consols, Kirkcudbrightshire, Prideux Wood, and Nansegollan. Setting at Levant.
20. Condurrow account on the mine.
21. East Pool account on the mine.
22. North Roskear and other mines' sampling.
23. Ticketing at Redruth—Devon Consols and other mines.
24. Pay at North Pool, and Great Wheal Alfred.
25. Pay at Wheal Tremayne, West Seton, Tywarnhayle, Agar, West Alfred, Copper Bottom, and South Trelawny.
28. North Pool account on the mine.
29. Carn Brea and other mines' sampling.
30. Ticketing at the Red Lion Hotel, Truro—United and other mines.
31. Pay at Carn Brea, East Pool, Tincroft, Treleigh, Wheal Ellen, and Wheal Reeth. Setting at East Crofty.

The *Piedmontese Gazette*, of the 20th, published a report on a second trial which has been made on board the *Gulnara* steamer of the coal found at Gonnesa, in Sardinia. This time the pieces were picked, and all the dust rejected. The steamer performed 11 miles in one hour and 38 minutes, the wheels revolving 25 times per minute. After this trial, the steamer was made to tow a vessel of 100 tons burthen, and under such disadvantageous circumstances she performed 9½ miles in one hour and 32 minutes. The quantity of coal consumed in both trials gave an average of 745 kilogrammes per hour, while the consumption of English coal would have been 500 kilogrammes. This result is much more satisfactory than the preceding one; the greatest disadvantage of this coal appearing to be the case with which its ashes are melted and transformed into scoriæ, by which the fire grates are easily stopped up. The Commission recommends the construction of a pecular sort of grate to obviate this inconvenience.

EXTENSIVE CHROME MINE.—On the Octorara Creek, which separates Chester and Lancaster counties, Pennsylvania, there is Wood's chrome mine, which is about 170 feet deep, 200 feet long, and about 40 feet broad. This is considered to be the largest chrome mine in the world, and the researches and analysis of several chemists, both of this country and Europe, have ascertained that it yields the best ore, being nearly pure bi-chromate of iron, 93 per cent. of which is oxide of chrome. The mine has been worked for 15 years, with a brief interruption; its site is represented as offering, what indeed the whole region has long been, a rich field of interest to mineralogists. It abounds in magnesian and chrome minerals, yielding also beautiful specimens of emerald, nickel, pennine, hammerite, marmolite, &c. The magnesian ore is found in horizontal veins in serpentine, some of which have been followed into the side of the hill nearly 100 yards.—*Lake Superior Journal.*

CANALS IN THE UNITED STATES.—It appears from the official statistics that, on the 1st Jan., 1843, the extent of canals in actual operation amounted to 4333 miles, and that there were then in progress 2359 miles, a considerable portion of which has since been completed, so that it is probable that the actual extent of artificial water communication now in use in the United States considerably exceeds 5000 miles. The average cost of executing this prodigious system of artificial water communication was at the rate of 6432*l.* per mile, so that 5000 miles would have absorbed a capital of above 32,000,000*l.*

ARTIFICIAL LEATHER.—A steam-engine of six or eight-horse power is erected at Abington, Massachusetts, for grinding up the chips and shavings of leather which are cut off by the shoe and boot makers, and which have heretofore been burnt or thrown away. These are ground to a powder resembling coarse snuff, and this powder is them mixed with certain gums and other substances so thoroughly that the whole mass becomes a kind of melted leather. In a short time this dries a little, and is rolled out to the desired thickness—perhaps, 1-24th of an inch. It is now quite solid, and is said to be entirely waterproof.

Mining Correspondence.

BRITISH MINES.

ALFRED CONSOLS.—There is no change to notice in the lode in the 90, east of Field's shaft. The water in No. 1 winze, under the 80, is rather too much for sinking, lode worth 40*l.* per fm. The 80 east is 7 ft. wide, worth 90*l.* to 100*l.* per fm.; west, 4 ft. wide, worth 60*l.* per fm. The lode in No. 4 winze, sinking under the 70, is 12 ft. wide, worth 200*l.* per fm. The lode in the 60 west is 4 ft. wide, principally capels. Our copper sampling is to-morrow (Sept. 23), about 220 tons.

ALLT-Y-CRIB.—*Sept.* 20.—We have cut the lode in the cross-cut to the west of the shaft—a fine lode; the ore is about 1 ft. wide, not quite solid; it will make 1 ton to the fathom; the lode is from 6 to 7 ft. wide, with no sign of old workings. I expect that we shall cut the lode in the eastern cross-cut by Wednesday next. The two men driving through the old rubbish in Llwynadda (the western side of the hill) holed there yesterday (Sept. 19) to the old mine, and we were enabled to go into extensive old workings. There are scores of old levels, cross-cuts, winzes, and stopes, which it is impossible for me to describe. I shall, I hope, on Monday, get the dial through it, and lay it down; the lode is, in this part of the mine, from 10 to 15 ft. wide. I think we shall find ore there, which the old men passed on the foot-wall.

Sept. 25.—We have a fine lode in the cross-cut west of the shaft, now yielding 2 tons to the fathom at the very least; the eastern cross-cut has not yet cut the lode; it is in 12 ft.; it appears to be on the eve of doing so; the breast of the level is becoming wet, which is a sign of our being near the lode. I have set a bargain to raise ore in Llwynadda at 5*l.* per ton on the side of the old workings, where we discovered ore as expected.

BEDFORD UNITED.—There has been no lode taken down in the 115 fm. level, east of the engine-shaft; in this level, east of Andrew's winze, we have met with a part of the slide or cross-course; in the western end the lode is from 3 to 4 feet wide, producing fine stones of ore. The lode in the 103 fm. level east is 4 feet wide, worth 26*l.* per fm.; and in Lintern's winze, 40*l.* per fm. (9 ft. long) for the length of the winze. The lode in the 90 fm. level east is from 3 to 4 feet wide, producing saving work—a very kindly lode. In Rundle's winze the lode is 3 ft. wide, and worth about 35*l.* per fm. We continue to drive by the side of the lode in the 80 east. In the 47 west the lode is 12 in. wide, composed of spar and mundic, with spots of ore in places. On the whole, the prospects of the mine are very favourable.

BORINGDON PARK.—Since my last report the end has been stopped in consequence of being obliged to remove the whim, it being in the way of the capstan—we are going to hoist the shears to morrow (Sept. 30). The pitch in the adit has been reset to two men, at 10*s.* in 1*l.* The engine is progressing satisfactorily.

— There has nothing been done in the adit end since my last. The engine is progressing satisfactorily; we hope to get it to work in about three weeks.

BRYN-ARIAN.—The engine-shaft is now down 9 ft. under the 24 fathom level, ground favourable for sinking. The 20 fm. level, driving west of Hughes's winze, is in a lode 5 ft. wide, yielding at least 10 cwts. of ore per fm. The lode in the stopes in the back of this level is 14 ft. wide, yielding 1 ton of ore per cubic fm. A stope in the back of this level, west of the shaft, is producing from 8 to 10 cwts. of ore per fathom. Hallett's engine-shaft is now down 10 ft. below the 20 fm. level; the lode is 6 ft. wide, and producing good stones of ore. The 20 fm. level, north of this, is rather disordered, but although the lode for 5 feet wide is coarse in quality, we save the the whole for dressing. We sought a rise in the back of this level about 8 fms. north of the shaft, to communicate to the old workings, sunk down from the level above, and to give ventilation to the mine, also to cut out ground for stoping; this rise will yield 15 cwts. per fm.

BRYNTAIL.—The 15 fm. level going eastward has much improved the last fathom driving. The stopes 12, 24, and 40 fms. west, in the 15 fm. level, will average 2 tons per fm. We have commenced rising in this level to communicate to the engine-shaft in a good course of ore, producing about 1 ton per fathom. The stope in the 10 fm. level will yield about 1½ ton per fathom. The stope east of Hill's rise will produce 1½ ton per fathom. The end driving west of Hill's rise will yield about 15 cwts. of ore per fm. The stope in No. 1 cross-cut will produce about 15 cwts. of ore per fm. The cross-cut east of Hill's rise is still poor, not having reached the orey ground that we are working upon 12 fms. above. The stope in No. 2 cross-cut we have suspended for the present. We have 46 men stoping this month on orey ground, and calculate them to break from 75 to 80 tons of ore.

BUTTERDON.—The lode in the 40, south of shaft, is still further improved, and now worth 4*l.* per fm., in very easy ground for working, consequently will pay well for taking away; the lode in the north end is 4 ft. wide, very promising, with occasional stones of lead, and expect an improvement shortly. The shaftmen have nearly finished the plat, after which they will commence sinking under the 40 fm. level.

CEFN GWYN.—The wheel is nearly completed in the pit. We have eight men at work in the level, cutting ground for the rods, &c. I hope to have the pumps and other castings home to-morrow (23d inst.), and in a fortnight from that time we hope to be in regular course of sinking.

CLYJAH AND WENTWORTH UNITED.—Since we commenced operations here, we have sunk and secured the engine-shaft 19 fms. from surface, cleared and secured the adit, &c. Our surface work has been in cutting drains to carry off the surface water, building engine and boiler houses and stack, which are nearly completed; we are now busily engaged in erecting the engine, the principal parts of which are fixed, and we calculate on getting it to work on Thursday, the 25th inst. We have driven a cross-cut south of engine-shaft and intersected two very fine copper lodes. The first, 4 fathoms south of shaft, has been opened on for about 60 fms.; the lode is from 1 ft. 6 in. to 2 feet wide, underlaying north about 14 in. in a fathom, composed of gossan, prian, and quartz, intermixed with rich stones of copper ore, in a beautiful stratum of white killas. The second lode is 20 fms. south of the shaft, and has a very promising appearance; it is 3 ft. 6 in. wide, underlaying north 1 ft. in a fathom, also producing rich stones of copper ore. More promising lodes, so shallow, we have never seen, and there is no doubt in our opinion of Clyjah making a rich mine, especially when we look at the locality, the number of lodes in the sett—being parallel with, and intersected by, the same cross-courses as the Old Wheal Buller. Doubtless these lodes are the same as those already discovered and wrought on in Wheal Basset and North Basset Mines, where they have given such large profits. Viewing the extensiveness of this sett, in such a rich mineral district, we feel no doubt whatever but that this concern will become equally productive as the above-named neighbouring mines.

COPPER BOTTOM.—We have cut through the lode in the 60 fm. level, and have driven 3 fms. east and 4 fms. west on the course of it; it is still of an unproductive character. In the rise in the 30 fm. level, west of Paull's shaft, the lode is 18 in. wide, unproductive at present. In the rise in the back of the 20 fm. level, west of Paull's shaft, the lode has improved since last reported; it is 3 ft. wide, yielding ore of a good quality. We are preparing to fix a whim at Highburrow shaft, as we intend sinking it, in order to prove the western part of the mine on the caunter lode. We have finished cutting down May's shaft from the 10 to the 20 fm. level, and are now securing it with timber. We shall commence cutting down the above shaft from adit to the 10 fm. level in three or four days, as at the end of that time the men will have finished cutting down and securing a piece of ground at and above the adit level. We have finished cutting ground for the dam in the 30 fm. level, and have commenced building it; we have also finished cutting ground for the dam in the 20 fm. level. The cuttings for flat-rods and bob-pit are progressing as fast as possible.

CYFANNEDD FAWR (LEAD).—We are getting on fast with the dressing-floor, and I expect to have the shed thatched by the end of the month; the weather has been very favourable for our operations. In No. 2 sink the ore has much improved. We had some splendid stones of lead to-day (Sept. 24) from the bottom; the lode is widening, being at this time about 4½ ft.

DEVON AND COURTENAY.—The engine-shaft is now down 10 fathoms 1 ft. 9 in. below the 60 fm. level, where the stratum is of the best character, and strongly mineralised; it is full of branches and spots of ore throughout; I never saw anything like it anywhere, except near a rich lode of ore, and I am of an opinion that this will not prove an exception. I have set to complete all the necessary work preparatory to driving the 70 cross-cut at 7*l.* 10*s.* Carthew's shaft is now in a hard elvan rock. At Rendle's shaft the men have cut borer holes, put in bearer, hung the lift, solared over the shaft, hung tackle, &c., and are now sinking. The steam-engine, water-wheel, and all the machinery, are working well. There is no change in the 60 end to notice, and the tributers have not taken down the lode since my last report.

DEVON BURRA BURRA.—We have no doubt but we opened upon the Gate-post lode yesterday (25th inst.), around which we succeeded in taking, from the foundation of the hedge principally, more than a ton of the purest copper ore, precisely of the gate-post character as to strata, and we think much higher in produce—large blocks 3 to 4 cwts. in a block. We have abundance of water, and must have an engine of good power. The end on the southern lode is improving. In the brake we have commenced driving south from our western end, to cut the fine lode seen in the lobby. We have opened above 3 fms. on the north lode—this is an immense lode, possessing all the strength and beauty to be desired. We want nothing but machinery to develope this important mineral field.

DOLFRWYNOG (COPPER).—We still continue in the blue clay at Williams's shaft. At Harvey's driving we have come into a north and south lode, about 4 ft. wide, carrying copper all through, more or less. The walls, as far as we have gone, appear very regular. We shall drive north on this lode.

DYFNGWM.—We have cut the lode in the 32 fm. level east; it contains beautiful lead ore, though we have only taken down a part of the hanging side, which was 7 ft. to the south of the level—my estimate being 6 feet. I must send you a plan of this level and the lode next week, to show the position of both. We shall fix the launders to-day, (September 20th), to convey the waste water, and the water from the Cyfarthfa adit to the wheel.

EAST BALLESWIDDEN.—Since the last meeting we have completed the Rose lode engine-shaft to the 10 fm. level—have fixed a lift of pumps, put in sollar, ladders, dividing, casing, &c., and have extended the 10 fm. level 6 ft. east and 12 ft. west from this shaft. These levels are in a fine run of tin ground, which has produced great quantities of rich tin over the adit level, and we are expecting much from the 10 fathom level. We have also completed the flat lode engine-shaft to the adit level, cut plat, fixed ladders, and sunk this shaft 6 fms. under adit. We expect, by the 16th of next month, to sink this shaft 8 fms. under adit, and, as we have a large quantity of water in this shaft, I intend, as soon as we are down 8 fms., to cut a plat, fix a lift, and extend our levels on the tin lode at that depth; and I expect, in a few months, to lay open a good quantity of tribute ground on this lode, as the ground is soft, and we can extend a good number of fathoms every month. Twenty fathoms west from the flat lode shaft we have cut a new lode, which runs parallel with the Rose lode—this is a good tin lode. We have extended the adit level 8 fms. west on this lode, in good tin ground; are now driving east and west, and have tin in each end, and a good lode in the bottom of the adit level west, 4 fms. long, which is likely to produce great quantities of tin. We have a very fine tin lode about 200 fms. west, which lode runs about 20 fms. south of the Rose lode. We have now on the surface 1100 sacks of tin stuff, worth 80*l.*, and we are raising more tin every month. We should have broken more tin, but have not been able to get our stamps up yet; I expect to get them to work in two months. I think we have here a good and lasting mine.

EAST BORINGDON.—We are cross-cutting to the lode, and are now about 9 ft. north of the shaft, and have gone through several small branches or strings of lead We expect to cut into the lode the early part of next week, which, when done, you will be informed of the result.

Sept. 24.—We have cut into the lode yesterday; it is about 2 feet wide, composed of prian, mundic, spar, and lead—a very kindly lode as can be seen anywhere, but not rich. The branch of lead the men went through in the shaft will drop into the lode about 6 or 7 fathoms deeper, where there is no doubt but that we shall meet with a great deposit of lead. We are busy in getting the pulley stands and things in order, so that we may connect the shaft with the engine by the time it is ready to commence operations.

EAST SHARP TOR.—We are now into the lode 9 ft. in the cross-cut east of Hitchins's shaft, but there is no alteration to notice in its character, being composed of capels, quartz, compact spar, and peach. The 40, west of the shaft, was set to six men, on the 22d inst., at 3*l.* 10*s.* per fm.—6 fms. stent, or the month out. The shaftmen have completed dividing and casing the shaft to the 40, and are now engaged cutting a bob-plat at the bottom of the perpendicular for an angle-bob.

EAST CROWNDALE.—The south lode, in the 58 west, is still very promising, and in good ground for driving, producing occasionally good stones of copper ore; in the same level the north lode is at present poor, and ground hard. The rise in the back yields good work for 8 in. wide, but in hard ground.

EAST WHEAL GEORGE.—The lode in the 23 fm. level east is 4 ft. wide, composed principally of spar. There is no improvement as yet in the lode in the 23 west. The lode in the stopes in the bottom of the 12 is worth 18*l.* per fm.

EAST WHEAL LEISURE.—A branch has been cut in the cross-cut in the 38 fm. level, 3 feet wide, composed of spar, prian, mundic, and stones of copper ore; the lode is expected to be cut in about 6 feet. The lode in the 27 east is looking promising—about 4 feet wide, and yielding ¼ ton per fm.; a cross-cut is being driven south in this level, to intersect Taylor's lode. The 17, west of Jewel's shaft, has been driven through a very kindly lode; the lode in the end is 5 feet wide, producing ¼ ton per fm.; in this level east the lode is looking more promising than it has done from the shaft; it is 2 feet wide, yielding ½ ton per fm. The 10 fm. level, west of Taylor's shaft, is 2 feet wide, yielding 1 ton per fm.; in the 10 fm. level, east of Taylor's shaft, on the north lode, and in a winze sinking under the adit, there is a large lode of rich mundic and good stones of ore. The shaft on the south lode is being sunk at 25*s.* per fathom.

EAST WHEAL RASHLEIGH.—Our mine is looking much better than I ever saw it before; the lode is making due north, with beautiful flookan on the west side and strong capel on the east, with fine cubes of mundic and spots of lead—the ground is somewhat fairer; the end is very wet, and the men finished their stent last Thursday, and have taken it again at 3*l.* 10*s.* per fm. I have put two more men on in the shaft, to facilitate our progress, some portion of it requiring timber. Mr. Lethbridge's steward has been to the mine, about the leat to be cut through their ground, and have agreed, on condition of our paying 5*l.* a year rent, which will enable us to get sufficient fall for a 25 to 30-feet wheel, and be a great saving to the company, instead of putting up a steam-engine.

ESGAIR LLEE.—The level has been extended 4 fms. in the most promising and productive ground ever yet developed in this mine; the lode is 4 ft. wide—3 ft. of which is good work; driven since setting day, 5 fms.; and I would advise the present shareholders not to lessen their interest previous to seeing the lode at a deeper level. We sold, on Thursday last, 20 tons of ore; and it affords us much pleasure to inform you that we fully expect to be able to sample again in less time, with one-half the number of pickmen, than we have heretofore. The stopes are looking rather better, yielding at present full half a ton of ore per fm. The deep adit east is now 2 fms. beyond the 12 fm. level; and it will be for your consideration, in case our present prospects continue, whether it would not be advisable to resume the 12 fathom level. The engine-shaft is down 10 fms. 3 ft. 6 in., leaving only 1 fm. 2 ft. 6 in. to sink, previous to cutting plat, &c.

GREAT BRYN CONSOLS.—We are getting on very well here. We have stones of copper and mundic from the lode on the hill, a ½ cwt. in a stone: this lode we expect to cut monthly. We have now in the end fine branches, which are sure to produce abundance of copper in depth. We are down with the trial shaft, and shall at once begin driving to cut the lode, which will be done in the course of a day or two. We begun to day, September 24th, to put on the roof of the count-house, smiths' shop, &c. Every thing is progressing to my satisfaction. I conclude that Bryn is a rich mine, and too much need not be said about her, as she will prove herself.

GREAT POLGOOTH.—The pitch in the 84 fm. level is very good, and there is an improvement in the 96, on the south lode. This place was not noticed in the last report, and was poor, but the lode is now producing some good tinstuff.

GREAT WHEAL BADDERN.—The 51, east of Kenworthy's, is going forward, but the lode in the end is without improvement; the indications are good, and directly above the back the lodes very productive; the rise in the back is going up in good orey ground; the stopes are producing fairly. The 40 end has not improved; the stopes in the back are yielding well. The lode in the 30 continues productive, and very kindly. The stopes in the back, east and west of Burgan's, and west of Buckley's, are very good. The 20, on the old lode, is suspended—the rise not being completed yet, having met with hard ground; the 20, on the new lode, east of cross-cut, still continues rich; the stopes on the old lode, in this level, are proving very well. The adit end has improved in appearance very considerably. The dressing and surface operations are as usual, going on steadily and well. We sample again to-morrow (Sept. 23) about 40 tons of lead ore, and are preparing a parcel of tin, which we intend to sell next Saturday; also a parcel of jack. The mine altogether is looking very prosperous.

HENNOCK.—Our operations are still confined to driving the 20 fm. level north, where we have had some very favourable ground, producing lead, jack, &c., and looking well for making a good lode in the next level; and as soon as the water comes for working the wheel, which I think will be in a few days, having had some rain to-day the first time for two months, we shall begin to open on lead ground in the 30 fm. level; and, from what I see of the lode gone down under the 20, there can be no doubt of its turning out quite satisfactory. The water is now up to the 20 fm. level; and it will take the engine three or four days to get it out after the top water begins to come.

HINGSTON DOWN CONSOLS.—The lode east of Doidge's winze is 5 ft. wide, and composed principally of gossan and ore; the western end is much as last reported. Victor's winze produces good stones of ore. The stopes in the back of the 35 yield good supplies of copper ore; the winze sinking in the bottom of the 35, on south lode, produces occasional good stones of copper ore. The lode east of Hitchins's shaft, in the 45 fm. level, is 3 ft. wide, producing good stones of ore. Our grinder went to work on Friday last, which works exceedingly well. I am glad to say we purpose sampling a parcel on Friday, the 26th instant, of from 90 to 100 tons of copper ore of good quality. Bailey's shaft progresses satisfactorily.

KESWICK.—At Brandley Mine, the 20 fm. level south is yielding a little ore; the 20 fm. north is worth 30 cwts., and Lynn's rise, in the same level, 10 cwts., of lead ore per fm. The Salt sump is yielding 30 cwts. to the fm. Six men are driving the bottom level. At Thornthwaite, the 37 fm. level is being driven by six men.

KILBRICKEN.—On the 15th inst. we forked the mine, and since I have been and examined it: the course of ore is 8 fms. in length, dipping towards the new engine-shaft. I recommend the company to sink the new engine-shaft to the 30 fathom level, and drive a cross-cut to intersect the lode under the stopes.

KINGSETT AND BEDFORD.—Our shaft is sunk 15 fathoms from the surface, and levels extended north and south 9 fathoms on the course or a very promising lode; it contains as good stones of lead ore as can be seen at the depth, and I have no doubt, if the cross-cut were driven from the deep adit, to intersect the lode at that depth, there would be some tons of ore sampling from this level, which I should strongly recommend, and, at the same time, keep two men extending the levels from Wallis's shaft, and by so doing, I think you may calculate on having a good mine in the south part of this sett.

KIRKCUDBRIGHTSHIRE.—At Steward's shaft, in the 86 west, we have put the men to rise in the back of the end on a very good lode. The lode in the rise over the 74 end west is turning out good ore; we have begun a rise in the back of this level, east of Gilpin's, to ventilate the level—lode a soft friable spar and flookan; in the same level west there is good ore coming in on the north side. The 62 end west does not look quite so well as it did last week, but is still good tribute ground. The 50 is producing about half a ton per fm., and easy ground for driving. We have sent off a cargo of ore this week, 40 tons.

LAMHEROOE WHEAL MARIA.—The flat-rods from the engine-shaft to the B copper lode is working well, and the shaft sinking by nine men to the 20 fathom level, where the lode will again be tested for copper ore; this work will occupy about two months, there being 6 fms. to sink. Capt. Joel Hitchins, in a report made to one of the adventurers, expresses a high opinion of this lode. A sale of tin has been made at 42*l.* 10*s.* per ton, the quantity being about 1½ ton. The dressing of the ore is continued by four heads of stamps. Mr. Murray is now at the mine, and will make a full report to the committee in the course of a few days.

LEWIS.—The north lode in the 90 fathom level, east from engine-shaft, is 10 in. wide, unproductive. This lode in the 80, east from tin shaft, is 4 ft. wide, opening good tribute ground. Fraed's lode in the 40, west from copper ore shaft, is 10 in. wide, unproductive. In the 30, west from Stainsby's shaft, it is 10 inches wide, opening tribute ground. Stainsby's shaft is completed, and plat cut, to this level. In the 20, west from Stainsby's shaft, it is 2 ft. wide, low price work. In this level, east of Gundry's shaft, it is 8 in. wide, unproductive. The red lode in the adit level, in the eastern part of the sett, is 8 in. wide, opening good tribute ground. Tinner's lode in the adit level, in the south ground, is 6 in. wide, opening good tribute ground. In other respects there is no alteration since my last report.

MARKE VALLEY.—In the 80 fm. level driving west the lode is from 2 ft. to 3 ft. wide, composed of capel, spar, and mundic, interspersed with copper ore of good quality; in driving east the lode is chiefly hard capel and spar, sprinkled with mundic and ore; in going east, at the 65 fm. level, the lode is 10 feet wide, producing 4 tons of ore per fm. The lode in the winze in this level is giving 4 tons of ore per fathom for the breadth carried. The stope No. 1, in the bottom of this level, is yielding 12 tons of ore per fm.—No. 2, 7 tons. At the midway level, driving east, tha lode is 12 ft. wide, producing 10 tons of ore per fm.; the stope in the bottom of this level yields 8 tons of ore per fm.—that in the back 7 tons. The driving east in the 50 is saving work, the lode being composed of capel, peach, and mundic, with copper ore.

MERLLYN.—The whim-shaft is much the same as last reported, producing above ¼ ton of lead ore per fm. The 16 fathom level, as well as the 15 yard level, is suspended, to run a winze through for ventilation. The rise in the back of the 16 fathom level is worth 15*l.* per fm. The winze in the bottom of the 15 yard level is worth 20*l.* per fm. We have commenced a rise in the back of the 15 yard level; the lode here is worth 25*l.* per fm.

MODITONHAM AND MARRABOROUGH.—We dropped the lift of pumps yesterday, Sept. 24th, very near the bottom of the shaft, where we found plenty of stuff in the mouth of this level, accumulated from the level and shaft, which cannot be cleared to enable us to draw the stuff with the whim kibbles; until this is done we cannot resume our works in the bottom level. We have cut down between 11 and 12 fms. of the shaft; and the last 8 fms., below the first 3 fms. from the surface, which is timbered, will require no timber, and this is a great saving; and I hope we shall not want much timber until we get near the bottom level. If the ground does not prove harder in the shaft, we shall get the work done in ten days or a fortnight, when we shall get to the bottom, and where I expect something good to report on after working a short time. We have spent a little money in driving in the cliff and costeaning in search of Wheal May lode, which is looking uncommonly well; but we have not found it in our sett. Our engine works very well I do not think there could be a much better one put together.

NORTH BASSET.—The lode in the 82 fm. level, west of the new shaft, is 4 ft. wide—a beautiful course of yellow ore. The lode in the 72 fm. level is 3 ft. wide—a good lode of grey and black ore. The lode in the 62, west of Lyle's shaft, is 2 ft. wide—black ore. In the winze sinking under the 72 fm. level the lode is 4 ft. wide—good yellow ore. We have now 19 men on tribute, varying from 1*s.* to 4*s.* in 1*l.*; and 43 men on tribute, varying from 4*s.* to 12*s.* in 1*l.* We have 51 men on tutwork driving the different levels, cross-cut, and sinking winzes, and 18 engaged in sinking Lyle's shaft and the new shaft under the 82 fm. level, making, with trammers, 142 underground. The tribute pitches are all looking well, and the mine never before presented such prospects.

NORTH BULLER.—We are driving the cross-cut north of Louisa engine-shaft: the ground is very favourable; it is now in from shaft 3 fms., in a pretty stratum of ground for copper ore. If it continues so favourable, we calculate in a short time to intersect the lode we met with in the shaft 22 fms. from surface. The south cross-cut is driven about 8 ft.—ground rather hard at present. We have broken the lode in King's shaft, and find it to be about 2 ft. wide, with very superior copper ore in it, with gossan and prian. Judging from the present appearances of this lode, we doubt not of its progressing very productive in depth. The lode in the adit is much the same in size and character as stated in our last report, but appears to improve as we go forward.

NORTH WHEAL BULLER.—Since our last bi-monthly report we have extended the 70 fm. level, east of the flat rod shaft, nearly 9 fms. through a very promising lode, the last 9 ft. producing some good specimens of lead and yellow ore, incorporated with a spar of a very favourable nature; and it appears from the change of strata in this level as if we were driving over a very promising lode, especially as all the water is drained to the bottom of the level. This level west has been driven 3 fms., where the lode is divided in three parts, with a hard bastard capel between them; at present it has a more favourable appearance, as the branches are getting larger and contain good stones of ore, and are likely to fall together again. We are still of opinion that no time should be lost in sinking our engine-shaft and seeing the lode at a deeper level. The 60 fathom level has been driven west nearly 13 fms., the first 6 fms. through a very promising lode; from the intersection of a north branch, which appeared likely to make a good lode in going down, it will be seen in the bottom level about 35 fms. before that end; the last 7 fms. has been in close ground, with but little lode, and no ore of any value; at present there is an appearance of a larger lode, with spots of ore. The 50 fathom level has been driven west 42 fms., and a rise made from this level nearly 4 fms. to meet Noel's shaft, which is now completed with footways, &c., to this level; in the rise and level we have had a very promising lode, varying in size from ½ to 3 ft. wide, containing ore of a superior quality, with mundic and spar. Under this level a winze has been sunk about 4 fms., at the point of the intersection with the branch noticed in the level below. The 40 has been extended 13 fms.; the first 4 fms. passed through a sparry lode of from 2 to 3 feet wide, with but little ore, although of a very promising appearance close to the disordered ground; the last 9 fathoms is in the disturbed ground, and the present end in a strong sparry cross-course, letting out a large stream of water. Noel's shaft has been sunk under this level 6 fms., through a strong promising lode, and has been communicated to the rise from the 50 as before mentioned. The 30 north has been driven 14 fms. through ground of a very favourable nature, in which we have cut a branch about 1 ft. wide, and extended 6 feet on it east, but so near the cross-course that we can say little more in its favour than that it contains spar and mundic. The 30 west will not be resumed until we see the lode in the level below in settled ground. The 20 south has been driven about 2 fms. through a very hard ironstone, but it appears now to be getting easier. The adit on the mill lode has been extend 10 fms., the lode varying in size from 8 to 18 in. wide, of a very promising nature, and containing rich stones of yellow ore imbedded in gossan. Under this level a winze has been sunk about 3 fms.; the lode is about 2 ft. wide, of the same nature as the level above; the winze is down to water, and nothing more can be done it until it has been drained by some means, which our 30 cross-cut is intended to do. Our tributers have sampled about 3 tons of ore, and are still working regularly and are getting wages: we have about 6 or 7 tons of ore dressed up. We were much gratified at a visit from your directors, Messrs. Ashton and Whalley, and hope from their own and Capt. Stephens's inspection, that they were perfectly satisfied that everything has been done that could be for the benefit of the mine.

PENHAUGER.—The shaft is in regular way of sinking by six men; the water is rather quick; but still they get down about 4 ft. per week,

PRINCE ALBERT.—In the bottom, which is only 25 ft. under the adit, we have a good course of tin, worth from 25*l.* to 30*l.* per fm.; strata soft, and we can sink and drive very inexpensively. The underlay of the lode, or declination, is on an angle of 44°, and, therefore, we have sunk a shaft from grass to adit on the course of the lode, so as to enable us to sink on the tin ground immediately; in doing which we have broken sufficient tin to cover the expense of sinking the shaft. We have engaged the water-course, which passes through the sett, at a reasonable rent, and we are now in course of erecting a 32-feet water-wheel, for the purpose of pumping the water and stamping the stuff, which will be in course of operation in two months from this time; this will be a great acquisition to the adventure, as the expense of erecting a steam-engine will be saved, and also the expense of the carriage of tinstuff, since the machinery in question is being fixed very near the shaft. The tin bills will show the amounts already received, and I am proud to state, that we have now at surface about 100*l.* worth of tin stuff; therefore, from present prospects, I hesitate not to say, that immediately after our machinery is set in motion the mine will begin to pay her own cost, open up her resources, and make a lasting dividend-paying mine.

RHOSWYDOL.—There is no change in Prosser's level. Davie's level, I am glad to inform you, is still in a good course of lead ore. I never saw the end of the level look better than to-day (Sept. 22d); in fact, I may say we have had a continuous course of ore ever since we entered the junction of the lodes. I measured the length of grey ground, and found it 58 ft., and the forebreast looking as promising as ever. The two men stoping on the back of this level have broken very good ore. The Smithy level has a string of lead and blende, not of any value yet; but I am in hopes of finding an improvement. Fox's level is driving as before. I have not yet shipped the ore, not having found a vessel.

RIX HILL.—The 50 fm. level, east of middle shaft, has reached the point where the shoot of tin was found in the level above: in this level the lode is poor, but I much doubt that we have all of the lode in the present end. My impression is that the large elvan course has split the lode in two at this point, and that we are on the south part of it. The cross-cut in the 50 is progressing favourably towards the north lode. We have cut the south part of the south lode in the 17 fm. level, west of Elliot's pitch, but at present it is disordered by a cross-course; we intend extending east and west on its course. Tregaskiss's pitch still looks well. Elliot's pitch is not quite so good as when last reported. No alteration in any other part of our tribute department since my last. The 22d inst. being our setting-day, Capt. Dunstan and myself will duly consider the best mode of exploring the western ground in that level. I have suspended the driving west of engine-shaft in the 17 fm. level, the lode being small and poor, and put the men to drive off from the cross-cut driven south in this level, to prove that part of the lode seen in Tregaskiss's pitch.

SILVER VALLEY AND WHEAL BROTHERS.—We have to report most highly of the lode in the rise from the 24 fm. level; it is about 9 in. wide, the leader part 3 in. wide, containing rich silver in almost every state except the muriate, and the other part of the lode is full of small branches of white iron, also carrying silver. Our rise is now up 3½ fms. from the back of the level; as it has been carried up rather short (not more than 6 or 7 ft.), the air has become very dead; in consequence of this, we are now rising 6 ft. to the west of the stull, going east, to effect a communication with the rise, to get good air; and in this part we have also some very good work. As a proof that the quality of the ore is not falling off, an assay was made from ore as broken from the branch in the rise on the 24th inst., which produced at the rate of 224*l* ozs. 3 dwts. 8grs. of silver to the ton of ore. The lode in the end of the 24 fm. level produces a little saving work. The lode in our other levels from Oak shaft is not yet productive. From Murray's shaft we are raising some dressing work, and from the old footway shaft we are breaking some rich silver (the muriate) in the gossan both east and west (particularly the eastern end) of the shaft, not more than 4 fms. from surface.

SOUTH TRELAWNY.—We are still cutting in west in the 60 with six men. We have extended west about 10 fms.; the price now giving is 9*l.* per fm. We are also driving on the eastern part of the boundary with three men, at 35s. per fm., but no discovery made yet.

TAMAR SILVER LEAD.—The engine-shaft is down 4 fathoms below the 205 fm. level; the end south is 1½ ft. wide, rich work. The lode in the 190 is 1 ft. wide, good saving work. The lode in the 175 is 2 ft. wide, one-half of which is work of coarse quality. Spurgin's shaft is sunk 14 fms. 1 ft. 6 in. below the 160, the rods breaking greatly impeded our sinking. At the north mine the engine-shaft is sunk 1 fm. below the 90. In the 80 end north the lode is 5 ft. wide, yielding silver-lead work; in the winze sinking in the bottom of this level the lode is 1½ ft. wide, finor-spar and ore, saving work. August ore sold—No. 1, 51 tons, to Thomas Somers, and Co., at 17*l.* 18s. 6d. per ton; No. 2, 52 tons, to the Tamar Smelting Company, at 18*l.* 9s. 4d. per ton.

TINCROFT.—Highburrow tin lode, in the engine-shaft, sinking below the 152 fm. level, at 45*l.*, is 6 feet wide, worth 22*l.* per fm.; in the 152 east, driving at 13*l.*, the lode is 3½ ft. wide, worth 8*l.* per fm. In the 142 fm. level, east of Martin's east shaft, driving at 6*l.* 10s., the lode is 4 feet wide, worth 16*l.* per fm. for tin and copper. In the 132 east, driving at 8*l.*, the lode is 4½ feet wide, worth 14*l.* per fm.; in the winze sinking below this level, at 7*l.*, the lode is 3 feet wide, worth 15*l.* per fathom for tin and copper. Chapple's lode, in the 120 fm. level, west of downright shaft, at 10*l.* 10s., is 3 feet wide, worth 15*l.* per fm. for copper. In the 110 fm. level west, at 10*l.*, the lode is 5 feet wide, worth 10*l.* per fm. for copper. Grout's lode, in the 80 fm. level, west of downright shaft, is 4½ feet wide, worth 20*l.* per fm. for copper. In the 70 west, at 10*l.*, the lode is 7 feet wide, orey throughout, worth 14*l.* per fathom for copper; the pitches both on this and Chapple's lode are looking favourable, and yielding a fair quantity of ore. At North Tincroft, the engine-shaft is down to the 120 fm. level, and we have commenced driving east and west—no lode has been taken down since last report. In the 110 east, at 7*l.*, the lode is 3 feet wide, producing good stones of copper ore; in the west end, same level, at 14*l.*, the lode is 3½ feet wide, unproductive. In the 100 fm. level, east of Willoughby's shaft, at 11*l.*, the lode is 2 ft. wide, worth 9*l.* per fm. for tin and copper; in the 100 fm. level, west of engine-shaft, at 5*l.*, the lode is 3 feet wide, worth 24*l.* per fm. for copper. In the winze sinking below the 90, west of the 100 end, at 5s. in 1*l.*, the lode is 3½ feet wide, worth 28*l.* per fathom for copper.

TREGARDOCK.—The engine-shaft is down 19 fms. 1 ft., and we hope, if possible, to sink 4 fms. deeper before we drive to cut the lode. We are still in a very congenial stratum of ground for lead, and trust the lode will prove very productive at that level—sinking by nine men, at 12*l.* per fm. The horse-engine continues to work well.

TRELAWNY.—At Trelawny Shaft, in the cross-cut, in the 107 fm. level, we have just cut into the orey part of the lode, which, as far as can be seen, is about 1½ foot wide, of fair quality work: we have been longer than we anticipated in intersecting it, from the circumstance of its being gone down quite perpendicular from the 92 fm. level. We first met with the capels, which were very hard, and about 4 ft. through; after which, we had about 4 ft. of killas before we met with the productive part; for the time, the capels and productive part have separated, in consequence of which the ground is much easier for driving, having set the end on the course of the lode at 5*l.* 10s. per fm., whereas we more generally give 12*l.* per fm.; we fully expect a good lode, as in every place where it has been so perpendicular we have found it so. In the 92 end north, the lode is 3 ft. wide, and worth 8*l.* per fm; in the south end of the same level, the lode is 2½ ft. wide, and worth 8*l.* per fm. In the 82 end north, the lode is 3 ft. wide, and worth 17*l.* per fm. At the north mine, in the 78 end, north of Prehane, the lode is 4 ft. wide, and worth 6*l.* per fm. In the 68 end, north of ditto, the lode is 2 ft. wide, and worth 4*l.* per fm. We have commenced the sinking of Smith's shaft, and are now down 6 ft. below the 68 fm. level—the ground favourable; in the 68, south of the shaft, the lode is 2 ft. wide, and worth 18*l.* per fathom. In the 55 north the lode is 2 ft. wide, and worth 12*l.* per fm. There is nothing in the stopes worthy of remark.

TRELEIGH CONSOLS.—Christoe Lode: In the 100 fathom level, west of Garden's, the lode is 18 in. wide, with stones of ore. In the 90 fm. level, west of ditto, the lode is 2 ft. wide, worth 40*l.* per fathom; in the stopes above the same level, west of Terril's winze, the lode is 3½ feet wide, worth 24*l.* per fm.; in the stopes above the 90, east of Terril's winze, the lode is 3 feet wide, worth 12*l.* per fm.; in the stopes below the 90, east of Arthur's winze, the lode is 3 feet wide, worth 18*l.* We have suspended the 80 fm. level, west of Garden's, for the present; in the 80 fm. level, east of Christoe's, the lode is 20 in. wide, with stones of ore, and is looking more kindly.—Parent Lode: In the 64 fm. level cross-cut, north of Parent shaft, we are driving north to cut Parent lode; in the 64 fm. level cross-cut south we are driving south to cut the middle lode.—Middle Lode: At Burgess's shaft, below the 13 fm. level, the lode is 15 in. wide, with stones of ore, and is looking more kindly.

TRELOWETH.—We have sunk in the engine-shaft during the past week about 4 ft. The 45 cross-cut south has cut into the north part of the lode, and until there is more driven into it we cannot speak of its worth; at present it is producing some good yellow ore, but not to value. They have driven 9 feet in the 32 fm. level east, at present yielding bat little ore; the west end is extended 3 ft., lode without alteration—driven 2 fms. south of Woodfall's shaft, and expect 10 fms. more before we intersect the lode in the 20 fm. level: sunk in Brightman's shaft 4 fms.

TREVISKEY.—In the 260 fm. level, 54 fms. east of Michael's shaft, the lode is 4½ ft. wide, yielding 4 tons of ore per fm. In the 248 fm. level, 168 fms. east of the above-named shaft, the lode is unproductive. The lode in the diagonal shaft, sinking below the 248 fm. level, is 3 ft. wide, producing 6 tons of ore per fm.; this shaft will intersect the 260 fm. level 4 fms. before the present end. The lode in the winze sinking in the 236 fm. level is producing stones of ore. In the 224 fm. level, 62 fms. east of the above, the lode is 2½ ft. wide, producing 5 tons of ore per fathom. The lode in the winze sinking below this level is 2½ ft. wide, yielding 6 tons of ore per fm. In the 212 fathom level, 52 fms. east of the above-named shaft, the lode is 2½ ft. wide, producing 3½ tons of ore per fm. The levels above the 212 are unproductive. We sampled 386 tons of good ore on the 10th inst., and expect to raise from 370 to 380 tons for the next two months.

UNITY CONSOLS.—At Gray's engine-shaft, our sumpmen recommenced sinking under the 60 fm. level, now down 2 fms. 4 ft.; the ground is tolerably good for sinking, and the men are going on with great spirit; in the 60, east of this shaft, the lode is 4 ft. wide, poor for copper, but still rich for tin.; in the 60 west the lode is 2½ ft. wide, producing some fine stones of copper, and very superior for tin. We are still rising in the back of the 50 west; the lode varies from 14 to 18 in. wide, producing good tinstuff. In the 30, east of Buckley's shaft, we have cut a large flookan, which has heaved the lode south; and, judging from the 20 fm. level, where the lode was similarly hove, I should say in about 3 fathoms we shall follow the flookan until we cut the lode again. At Lambo, in the 40 fm. level, east of Kenworthy's engine-shaft, we have commenced driving south, to cut Hampton's lode at that depth; the ground is moderately good for driving, set to drive at 30s. per fm.; in the 40 fm. level east, on Wheel lode, the lode is 6 in. wide, producing a small quantity of very good copper ore. We have holed the winze in the 30 to the 40 fm. level, east of Tweedale's shaft, since our last report; the western end is set to stope on tribute at 6s. 8d. in 1*l.*—the tributers to pay all returning charges, which will reduce the amount to about 4s. 6d. in 1*l.* Hampton's lode, in the 30 fm. level, going west, is 2 ft. wide, improved since last report; it contains flookan, spar, mundic, and some spots of beautiful yellow ore, and I think the indications to be very favourable for the production of a good course of ore from this part shortly. The stamps are gone to work, but the present supply of water is scarcely sufficient to drive four heads, and I fear we shall not have sufficient to work eight heads until we get a further supply. The burning-house is in course of building, and I hope it will be ready in about a fortnight.

WEST BASSET.—In the 42 fm. level, driving east, the lode is 1 ft. wide, producing about 1 ton of ore per fm.; and in the winze sinking below this level the lode is 2 ft. wide, producing 1½ ton per fm. No lode taken down this week in the 52 fathom level east. The sumpmen are dividing and casing the whim-shaft, in order to get the kibble to bottom. At the new shaft the ground is favourable for sinking, and the men are working well. The masons are busily engaged about the whim-house, and expect to get it up next week.

WEST GOGINAN.—The lode in the engine-shaft is still large, but at present poor; we expect to make this shaft 30 fms. deep by our next setting. The lode in the deep adit level, east of the old shaft, is 5 ft. wide, with a better appearance for ore than when last reported. We shall be quite ready with our machinery when wanted.

WESTON (LEAD).—On Cross's level the breast is still in the greenstone rock, which continues very hard. I am glad to find that more water issues out of the breast than usual, which I consider a favourable sign of an alteration for the better. Should we get out of this hard rock, there would be no difficulty, as we are not above 12 fathoms from the Ryder vein, when we shall come in contact with ground that can be driven for 3*l.* 10s. or 4*l.* per fathom; and I have no doubt something important will be found in the Ryder vein before many yards are explored in it.

WEST POLGOOTH.—We are now down on the lode in Hancock's shaft, which is 12 in. wide; we have broken a few kibblefulls out of it, and find it very rich for tin; we intend to sink on it as much as possible between this and next Friday, when you shall know the produce of it per hundred sacks.

— *Sept* 24.—Hancock's shaft is squared down to about 2 fms. above the 12 fm. level, where the lode is 1 ft. wide, and worth 3 cwts. of tin to the 100 sacks. I hope to complete all the work down to the 12 fm. level by Saturday night, when we shall commence sinking the shaft on the course of the lode—the shaft at this time is in a beautiful blue killas. I think there can be no doubt that in three months from this time the mine will be paying her own cost.

WEST WHEAL JEWEL.—The 85 fathom level, west of Williams's cross-course, on Wheal Jewel lode, lode producing stones of ore. The 70 fathom level, west of Hodges's cross-course, on the new south lode, lode producing tin and ore, saving work. The 42 fm. level, west of Hodges's cross-course, on Tolcarne tin lode, is worth 3*l.* per fm.; Quarry shaft, sinking below the 42 fm. level, is worth 5*l.* per fm.; the stopes in the back of the 42, west of Quarry shaft, on Tolcarne tin lode, is worth 18*l.* per fm. The stopes in the back of the 57, west of Hodges's cross-course, on same lode, are worth 15*l.* per fm. The stopes in the bottom of the 12 fm. level, west of Tregoning's winze, on the same lode, are worth 14*l.* per fm. The stopes in the bottom of the shallow adit, west of Tregoning's shaft, on the same lode, are worth 15*l.* per fm.; these stopes are working on tribute.

WEST WHEAL RUSSELL.—The lode in the 48 fm. level is still producing good stones of ore. In the 37 fm. level the lode has improved in the last 6 ft. driving, producing good stones of ore, with every promise of further improvement. In the rise in the back of the 37 fm. level the lode is divided into branches, having been intersected by a slide, but we cannot say much about it for the present. A large lode has been discovered during the last week on the west of the Tamar, about 36 fms. to the north of the lode already worked on; it is full 7 ft. big, containing gossan, mundic, &c., and of a very kindly appearance, and we are now preparing to sink on its course, to prove it at a greater depth. The walling up of the wheel-pit will be completed by Saturday next, and we hope then to commence fixing the wheel.

WHEAL ARTHUR.—The lode in the bottom of the 20 fm. level is from 4 to 5 feet wide, very good. We have just drawn up the best parcel of copper ore ever taken from the lode since its discovery. We are getting a parcel ready for market.

WHEAL AUGUSTA.—Since the last meeting, we have extended the 30 fm. level west; we have a branch of tin in the end, but the lode is only 8 in. wide. We have a lode in the winze under the 18 fm. level (just over this level) 6 ft. wide, 2 ft. of which is good for tin. I have stopped the 30 end, and put the men to sink the winze on this tin. In the 10 fm. level east we have a good lode of tin, 8 in. wide. In the 18 fm. level west we have a lode 18 in. wide, all saving work. We are expecting to cut the guide lode in this end every month. We are extending the adit level on the new south lode, and have good branches of tin, in kindly soft ground. We can now see the tin ground for 34 fms. long, and still holding away in each end. We have now four large tin lodes near the engine shaft, and I believe that the same steam-engine will stamp all the tinstuff from these lodes for years to come. These lodes are in one of the best tin districts in Cornwall, and in a fine run of tin ground. We have this day (Sept. 20) broken from these lodes some very rich stones of tin. We have at last fixed on such an engine as is likely to be of great service to the company.

WHEAL CATHERINE.—The men in sinking the shaft have cut a large stream of water, which is a favourable indication. We have ordered a 12-inch lift from Messrs. Nickolls, Williams, and Co., who have engaged to send it this week, when we shall resume sinking as quickly as possible. We are opening on the lode in the adit level, and preparing for the reception of the larger lift. The walls of the smith's shop are up, and the roof will be on next week.

WHEAL CREBOR.—Our steam-engine went off on Wednesday last; it works well, and everything attached to the same also, and gave general satisfaction to the parties present; and I have no doubt if things go on as I have every reason to believe they will, we shall see the 12, or first level, in fork the latter part of next week. After the engine went to work, those men engaged in the different departments of labour in the mine partook of a good plain dinner in the yard, being a fine day; every person appeared to enjoy themselves.

WHEAL GOLDEN.—Since my last report, we have had a serious collapse in one of the pumping engine boilers, previously to which we cut a great quantity of water in the 70 fm. level, north of Thorne's shaft, and at the time only one boiler was at work, the other having been turned idle for the purpose of being cleansed: by reason of this, the water has increased in the mine for nearly the last fortnight, and had risen 6 fms. above the back of the 70 fm. level before we could get the boiler repaired, which took until the morning of the 13th inst., the men having worked day and night to complete it. The engine has been working very well since, and going as fast as we can well work her. I am happy to say that the water is now forked to the 70 fm. level, but in consequence of its being in the mine, we have have had several runs, which we are now clearing and securing as fast as possible, and hope it will be completed by to-morrow morning (the 19th inst), to enable us to commence forking the water under the 70 fm. level. Notwithstanding this delay, I am glad to inform you that we have a good lode in Thorne's shaft, as also in the 70 fm. level. The other parts of the mine are looking much the same as last reported.

WHEAL HAMLYN.—We have got through the lime rock in the adit end, and are now crossing the great caunter lode in the quarry, which is very soft, and composed of a quantity of greens and mundic—more so than in the quarry: from the present appearance I believe it will make abundance of ore in depth; should this soft ground continue in the end, we shall hole to the quarry in a month. We have a very promising lode in both levels going west from the quarry, and we expect to meet with the east and west lode in three weeks or a month. We have opened on this east and west lode, about 70 fms. west of the quarry and lime rock, at the surface, and find it to be a very pretty back; lode 6 ft. wide, composed of gossan, stained with ore.

WHEAL LANGFORD AND BARING UNITED.—The engine is erecting as fast as possible, and every effort making to complete it at the time named (Oct. 2). We are still driving Wheal Baring adit, and have at present small branches of spar, thickly interspersed with mundic, which indicates that we are approaching nearer the lode. We have not taken down any of the silver lode since last week.

WHEAL MARY ANN.—Since my last report, we have completed the pitwork to the 80 fm. level in Pollard's shaft, and have driven the cross-cut 6 feet eastward towards the lode, which we expect to intersect in a few days. The lode in the 70 fm. level, north of the shaft, is 2½ feet wide, and worth 9*l.* per fm.; in the same level south it is 2 feet wide, and worth 10*l.* per fm.; in the same level, north of Penhale's winze, the lode is 2 feet wide, and worth 9*l.*; the lode in the winze sinking under the 70 fm. level, north of the shaft, is 2½ feet wide, and worth 8*l.* per fm. The lode in the 60 fm. level, south of the shaft, is 3 feet wide, and worth 7*l.* per fm. The lode in the 50 fathom level, south of the shaft, is 2 feet wide, and worth 7*l.* per fm.; the lode in the winze sinking under this level is 2 feet wide, and worth 8*l.* per fm. The lode in the 70 fm. level, south of Barratt's shaft, is 3 feet wide, and worth 12*l.* per fathom. The stopes throughout the mine are usually productive. On Friday, the 12th instant, we sold a parcel of lead ore (computed 85 tons) to Messrs. Sims, Willyams, and Co., and Locke, Blackett, and Co. at 20*l.* 17s. 6d. per ton.

WHEAL MAY.—The lode in the engine-shaft is 2½ feet wide, composed of white iron, spar, prian, and very good stones of yellow and grey copper ore, intermixed with silver: the men are going on with sinking the shaft as fast as possible, and the water is but very little at this present time for the engine to keep.

WHEAL PROVIDENCE (SOUTH SYDENHAM).—The general progress of this mine is most encouraging. The engine is working in a very satisfactory manner, and the water is in fork to the bottom level. A tribute pitch has been set to eight men at 5s. 6d. in 1*l.*, and a considerable pile of ore is now at surface. The lode in the winze is looking well, and the adventurers may expect with confidence to sending ore to market within a short period.

WHEAL RUTH.—In the 12 fm. level west no lode has been taken down for the past week. In the 12 fm. level east the lode is 2 ft. wide, 18 in. of which is of fair quality work—price for driving 25s. per fm. The lode in the stopes (back of the 42) is 15 inches wide, producing some saving work.

WHEAL UNY.—Our work is progressing as fast as possible. We have engaged all the men required for the engine shaft: they have been cutting ground for bearers, and are now engaged in sending down and fixing the pitwork—we hope to get it right in time for the engine, and which the engineers are erecting as fast as they can get the work sent from the foundry. Mr. Hodge has promised that the engine shall be ready for working the latter part of next week. The surface labourers are clearing out balance-bob pit to capstan round, and also assisting in sending down pitwork. The carpenters are very busy about connection rods, and fencing for engine-house. We have purchased at Wheal Mary ann a 14-in. cayston rope, which will answer much better for dropping the lift on the underlie than chain. We hope to be enabled in our next to let you know how the engine and pitwork suit.

WHEAL RUSSELL.—The cross-cut in the 60 fm. level has been continued to be driven south, and we have met with several branches containing good spots of copper ore. In the cross-cut in the 48 fathom level, driving towards the great north lode, branches producing copper ore have also been met with; and, from the general character of the ground, it promises favourable for the lode when intersected. In driving south on the cross-course in the 37 fm. level it has a very promising appearance, composed principally of flookan, quartz, mundic, and strings of rich copper. We have not yet met with any lode in driving south on the cross-course in the 16 fm. level. The walling of the wheel-pit will be completed by Saturday next, when we hope to commence fixing the wheel. Since my report of the 17th inst., we have sunk 7 feet on the lode at Morewidham, and find it equally as promising, continuing to produce good stones of black and yellow copper ore, and maintaining its size as then reported—3 feet.

WHEAL VENTON.—I regret to state that, notwithstanding our utmost exertions to cut the lode in the 40 fm. level before the general meeting, we have not been able to do so, but have driven the cross-cut nearly 4 fms., which would have intersected it, if it had continued the same course, from the 30 to the 40 fm. level, that it took from the surface to the 30; but we are happy to inform you, that the ground sunk through in the shaft, as well as that driven through in the cross-cut at the 40, is of a very congenial character, and, from the regularity, size, and quality of the lode in the north level, at the 30, we have every reason to suppose that when we have cut it at the 40 we shall find it a productive one; and from the increase of water in the cross-cut we suppose we are very close by it; but the ground is at present hard and our progress slow. The lode in the north end, at the 30 fm. level, is still large, regular, and producing a tolerable quantity of ore; indeed, quite as much as we had reason to expect at that depth from a good lode, as it is not more than the depth of a moderate adit. We have driven more than 14 fms. through this lead ground, and find the lode in the present end is as good as it has ever been; and what is not unimportant to us, the lode coming southward from Butterdon is of much the same character as it is going northward from Venton, making it very probable that a continuous piece of lead ground exists from one mine to the other. In the south end in the 30 the lode is much improved in size and has produced a little lead, but not in sufficient quantity to be worth notice, except to show the character of the lode; it is also producing a fine gossan, and holds out great promise of being productive below, but I do not expect it at this level; the only reasons that induced me to drive this level so far was to take its real course beyond the disordered ground and heaves, as it could be done much quicker and cheaper in the easy ground than in the firm and compact ground in the 40. To conclude, I cannot but remark that the mine is in a most encouraging state; a continuance of lead at the 30 north level; the lode is cut of a very promising character at the 30 south; and the ground sunk and driven through below of a very congenial nature. These are very fair results for the time we have been working, and will satisfy us, if we are not too sanguine.

WHEAL VICTORIA.—The engine-shaft is sunk 7 fms. 1 ft. 8 in., and set on the 19th inst. at 9*l.* 10s. per fm., by nine men. The shallow adit has been driven in the past month 15 fms. 5 ft.; set again, at 2*l.* per fathom, by four men. The wheel pit is progressing favourably.

WHEAL ZION.—We have filled all the available room on the sampling-floors at Calstock Quay, and are obliged to take another week to have ample space provided us for the reception of what ores we are now busily dressing and have already dressed at the mine; we are compelled, therefore, to defer the sampling a week from the time fixed. Both our winzes are rich in black and grey ores, which, on being broken by the spallers and buckers, discovered some fine stones of beautiful yellow ore. This is what we have been anticipating; and now feel confident to state that little doubt can exist in the mind of any miner of our champion lode becoming at a moderate depth a lode of yellow ore. The course of ore in the western winze is 2 ft. solid; in the eastern winze it is not quite 1 ft. 6 in. wide. Lemon's shaft is down 5 fathoms under the 12½ fathom level, or about 17 fms. deep from the surface, and is sinking in a mass of vughy gossan and mundic, and we judge it to be nearing a gulf of copper ore. We are progressing favourably with our adit level, both towards Lemon's and Bray's shafts; the latter is about from 14 to 15 fms. deep. Vivian's engine-shaft is 6 fms. deep. We find it necessary to enlarge our floors to receive the ores daily coming up.

FOREIGN MINES.

COPIAPO MINING ASSOCIATION.—[Received Sept. 24.]

July 24.—COPPER MINES—CHECO.—Our prospects here are much the same as last month. In the 50 fm. level the lode continues large, and carrying a branch of 10 in. wide, of superior ore. In the 30 also we have a large lode, which is producing some very good ore. We have commenced a cross-cut in the 60, to cut the south lode, and hope to do so by the end of the month.

SAN PEDRO.—Two Englishmen only being employed, not much can possibly be done. We continue to raise some fair quality ore from the stopes in the back of the adit level.

LA COMPANIA.—In the 18 east the lode is 2 ft. wide, producing some very good ore. In the winze below, the lode is becoming more settled, and is now producing some rich stones of ore. The stopes, both back and bottom of the 10, continue to yield well.

LA REINA.—In the shaft the lode is still of immense size; we have neither wall in sinking, as it is composed of gossan, crystallised iron, with deposits of rich ore, and is similar in the winze.

FLAMENCO—SAN AGUSTIN.—The adit west is a large well-looking lode, producing ore of average quality. In the 12 east and west the lode is large, composed of gossan, with some superior ore embedded therein.

SAN CARLOS.—Nothing to report. The Englishmen are sinking on the new lode in search of water, but as yet have not found any.

Produce for June:—Checo, 30; La Compania, 12; San Augustin, 7; La Reina, 3; and San Pedro, 3—total, 55 tons.

Duty on Ores.—The Government, from representations made (more especially from Copiapo) by the miners, has decreed that the duties on bar silver and copper ore, and other metals, be gradually reduced, so that, in about four years from this time, no export duties will be levied; also the greater proportion of the import duty on materials for mine purposes will be repealed, or nominally so, from Oct. ensuing. This is one of the many liberal concessions made by the present Government of Chili in favour of mining interests, which is of vital importance to Copiapo. I am happy to say that, by the present authorities, justice is equally meted to rich and poor, native and foreigner. The manager has given me a flattering account of the works now being carried into effect at Port Caldero—in fact, the facilities when the railroad is finished will be great; he travelled 24 miles on the rails (about half-way to the city); and although, perhaps, the work may not be done with the costliness and solidity of English roads, yet I believe it will be a proud monument of Copiapo enterprise and capital, the funds having been raised exclusively there.

SILVER MINES—AL FIN HALLADA.—I am happy to say our prospects are good: in sinking at the bottom of the mine, we have a large lode, composed of a beautiful quartz, interspersed throughout with white silver. In the 20 we are working in four different places, and in each the lode is large, and producing average quality ore. In the 15 the lode is 2 feet wide—good ore. Ore now in the chancel, about 10 cajons (of 3 tons each), which will be ready for the troop by the 4th of next month.

SAN JOSE DEL CARMEN.—We are driving the cross-cut south, but have not yet met with the lode; to the north, the mantc is looking well, being very metallic; and we are daily expecting it to become very productive.

MERCEDITAS.—In the 25 east we have a pretty lode, 1½ ft. wide, very metallic; west, the lode is 1 ft. wide, quartz, prian, with particles of arsenical silver; in the chiffon below, now down 10 fms., lode 2 feet wide—hourly expecting a branch of ore.

CARMEN ALTO.—In the 16 fm. level north the lode is at present small; but we hope to fall in with a cross lode, which we expect will considerably improve it.

SANTA ANA.—In the 20 fm. level north the lode is at present small; but in the bottom of the level we have some good ore ground standing, on which we purpose sinking a winze. We expect to raise a fair quantity of ore.

COLORADA.—In sinking below the bottom level there is a large lode of quartz, prian, with sprigs of arsenical and tints of ruby silver. In sinking on the lode to the north, which gave some horn silver on the back, the lode has considerably improved, and is now looking remarkably well.

GOLD MINE—DESCUBRIDORA DE ORO.—In driving the adit level north we have raised about 6 cargas of gold ore of average ley, with a little copper ore of good quality. The ores, with the water, 6 cargas per day, will pay the costs of the mines, and above this the water is invaluable for the company's troop, when engaged in carrying from this place to Flamenco. In conclusion, I beg to observe, that with the fresh supply of hands which we are looking out for, per *Forfarshire*, we hope considerably to increase our returns.

LINARES MINES.—The following has been received from Mr. H. Thomas:

Linares, Sept. 13.—I am able to report to you the arrival of our pitwork, forwarded per *Pepita*, which will enable us promptly to set about the needful changes in the shaft, &c., which we hope to accomplish with very little hindrance. The engine-shaft is sinking under the 55, with little change worthy of notice, and the same may be said of San Juan and Shaw's shafts. The 55 fm. level, driving west of Wilson's shaft, has been driven during the past week on a much more productive lode, having been worth from 7 to 8 tons per fm.: at present it is not quite so good, being worth 5 to 6 tons, but still a good lode, and for 30 fms. before this end we may expect a good run of ore ground, judging from the tributers' working on the lode west of San Juan shaft. The men whom we had set to sink a winze under the 45 behind the end have met with water, which prevents their progress at present, and we have put the same men a little to the east of San Juan shaft to bring down a stope, for the purpose of making good the 45 fm. level, preparatory to sinking a winze at that point, and thus make promptly available the ore ground now opening by the 55 fm. level. In the 45 fm. level, driving east of Shaw's shaft, the lode is worth from 1½ to 2 tons per fm., opening tribute ground. In clearing the 31 fm. level, east of Shaw's shaft, we appear to have reached some unbroken ground, probably not continuous for much length; of this more can be said in my next. The shaft clearing through the old workings in advance of this end is now 17 fms. through, the lode on both ends being completely removed. Our tributers are breaking considerable quantities of ore, and in this respect the mine is looking generally well. The stopes in Tantee have partially fallen off, but we may expect an improvement with a little further advance eastward. Stock Account: Lead ore weighed in to Sept. 18, 50 tons 7 cwts.: total in stock, 371 tons 1 cwt.—Pig-lead smelted to September 13, 25 tons 6 cwts.: total in stock 371 tons 10 cwts.

ROYAL SANTIAGO MINING COMPANY.—[Received Sept. 24.]

Aug. 6.—July raising were as anticipated in our last—170 tons of copper ore and 5 of precipitate. We find the water does not drain from Taylor's shaft, now 10 ft. under the 15 fm. level, which indicates that the lode is not yet intersected in the 22; the lode in this shaft is enlarging; the leader of ore is 6 in. wide, regular the whole length of the shaft. The lode in the 15, west of Taylor's shaft, is 5 to 6 ft. wide, but poor—a horse intersected by strings of ore and mundic; 4 fms. in advance of this end is a winze sunk 4 fms. under the 10; the lode there is 2 ft. wide, yielding 1½ ton per fathom. We shall raise all the ore we can this month; but with the western stopes poor, and water within 10 ft. of the 15 fm. level, you will see there is not much chance of our completing a cargo for the *Sion* by the 31st. The adit end has improved in the last fathom; the shallow adit remains without alteration. In a winze sinking upon the 22 fathom level east, now 5 fms. deep, the lode has changed from gossan to a soft quartz. At Angelita, Good Hope shaft has been sunk 2 fms.; the north part of the lode which produced the ore upwards has underlied out of the shaft. I expect it will turn again at a deeper level.

Cobre, Aug. 16.—The 15 west has improved, and now yields some good ore; the winze to the west has been communicated, and from the appearance of the end, the ore ground is likely to be of greater length than it was in the 10. The last-named level has a better appearance; it has given some stones of black ore, and is much easier for driving; as the end is within 8 fms. of the junction with the lode referred to in the adit level, there is a probability of this level being again in orey ground. The 22 fm. level is drained, and again at work, and we have commenced a rise against Taylor's shaft; the rise is quite dry, and the shaft very wet, although there can be but 6 ft. to communicate; these must be a flookan between the two shafts, which keeps up the water; I hope a day or two will see the shaft holed to this level. At Taylor's shaft the east end is poor; in the west the lode is 3 ft. wide, 1½ ft. of which is saving work. This ore does not reach to the 22 fm. level, the end being 5 fms. west. The ore now raising is all from below the 55 fm. level, with the exception of a few tons from the back of the 10. We have cleared 50 fathoms of ore, and the raisings are not much under that amount; the lode is from 4 to 90 tons of ore, and the raisings are not much under that amount; the lode is from 4 to

5 ft. wide, and yields as well east of a heave (to the north 2 ft.), first met with in Taylor's shaft in the 15, which heave gains to the west 19 ft. in a fathom of depth, and is now 9 fms. west of the shaft.

On the whole, however, the stopes hitherto have not realised expectations. The ore is less regular west of the heave, while the mundic and peach have not diminished.

MEERSHAUM MINES.—The "meershaum" is found in the ancient plains of Douglaeum, near Eski Shehr. It is found at various depths, in a species of calcareous breccia, containing masses of the rocks of the surrounding mountains, where we find all that is found in the plain, except the meershaum, the origin of which we are inclined to attribute to a change produced upon carbonate of magnesia by water containing silex. It was, doubtless, obtained at this very place by the ancient Greeks; the use, however, that they made of it is unknown to us. The companies who now explore are Turks, and those who labour are paid proportional to what is extracted, and as the value of this substance increases greatly in proportion to the size of the mass, the business is of a very precarious nature, and, in many instances, results in great loss to the miners, while at other times they procure pieces affording large marketable specimens, and their profits are then proportionably good. The mining is carried on with the same eagerness, and its yield is as precarious as that of gold. Specimens are exhibited showing both its mineralogical and geological character. The principal mines in the plain are Remiclick, 27 miles north of Eski Shehr, and the shafts there are from 90 to 120 feet deep. Hazanch, 15 miles east of Eski Shehr, is an old Greek mine, and has a shaft from 50 to 90 ft. deep. Nemleckern, 15 miles west of Eski Shehr, and one near Rutagah, are also Greek mines. The two first are worked at present. Hazanch, recently commenced, is yielding well, and the third is abandoned on account of the rapidity with which the water flows into it. In sinking a shaft on these plains, the meershaum is found from the surface down; but that near the surface has not the requisite properties, being hard and chalky, and does not yield rapidly to the pressure of the nail, as good meershaum does. After being obtained, it is used for making pipes in Europe: the best pipes in use are made of this material.

DISCOVERY OF GALVANISM.—This remarkable form of electricity, otherwise known by the name of voltaism, owes its origin to an accidental circumstance connected with some experiments on animal irritability, which were being carried on by Galvani, a professor of anatomy at Boulogne, in the year 1790. It happened that the wife of the professor, being consumptive, was advised to take as a nutritive article of food some soup made of the flesh of frogs: several of these animals, recently killed and skinned, were lying on a table in the laboratory, close to an electrical machine with which a pupil of the professor was making experiments. While the machine was in action he chanced to touch the bare nerve of the leg of one of the frogs with the blade of a knife that he held in his hand, when suddenly the whole limb was thrown into violent convulsions. Galvani was not himself present when this occurred, but received the account from his wife, and being struck with the singularity of the phenomenon, he lost no time in repeating the experiment and investigating the cause. He found that it was only when a spark was drawn from the prime conductor, and when the knife, or any other good conductor, was in contact with the nerve, that the contractions took place; and pursuing the investigation with unwearied industry, he at length discovered that the effect was independent of the electrical machine, and might be equally well produced by making a metallic communication between the outside muscle and crural nerve.

The *Fire Queen*, iron steam-vessel, was taken into Portsmouth Dock on Wednesday, to repair damages done by a steamer running into her. The officers of the dockyard were directed to examine and report on the state of her bottom, which was payed 13 months since with Mr. Hay's composition. The bottom was covered with mud and slime, but scarcely any weed; the whole was washed off clean, leaving the composition hard and firmly adhering to the iron all over the bottom, with the exception of a few small spots, which appeared to have been rubbed off, and would have lasted well another 13 months. This appears a most successful application for the protection of iron, so much sought for now that iron is again sanctioned for shipbuilding.

A correspondent informs us that Mr. Robert Stephenson, M.P., has determined upon employing iron sleepers for the construction of the railway from Alexandria to Grand Cairo, and has selected Greaves's conical surface-packed sleeper for the formation of that line. The distance contracted for is 100 miles.

The trial of the locomotives on the Mont Sœmmering has terminated. The prize of 20,000 ducats (237,000 fr.) has been awarded to the *Bavaria*, a locomotive, constructed by M. Maffoi, of Munich. In informing M. Maffoi of the granting of the prize, the Austrian Government, in accordance with the conditions laid down, gave him an order for 20 other locomotives of the same kind.

THE SUBMARINE TELEGRAPH.—At four o'clock on Thursday morning, the vessels having charge of the submarine telegraph cable arrived in Dover Harbour from London. The hold of the *Blazer*, an old dismantled steamer, had been gutted, to make way for the gigantic scroll of wire, weighing altogether 180 tons. One end of the cable was landed, and fixed at the South Foreland, when Mr. J. W. Brett, and other gentlemen, accompanied the *Blazer*, to watch the progress of "paying out" the cable, and keeping up communications, at regular intervals, with the shore by telegraphic instruments on board. Guns were also fired, both on shore and on board, by the galvanic current, through the whole 25 miles of wire. After a great many very narrow escapes of breakage, through the joinings in the ropes catching the edges of the hawser hole through which it passed, the *Blazer* arrived within three miles of the French coast at five o'clock in the evening, when a message was sent to the morning journals, and by six she was brought to anchor, with 2⅝ miles of cable on board. A large portion of the rope was laid out of the straight line through the strain on the vessel; and the experiment is now at a stand until some additional length is manufactured. So far, the success of laying down the cable may be said to be perfect; but the question is, how long will it last? Its power of resistance to strain, or tension, is said to be 8 tons—a strength which the first fisherman's anchor would overcome; and, even if safe in this respect, we have yet to learn how long the several materials will last beneath the ocean, with powerful galvanic currents continually passing and repassing. We fear there is much truth in the observations of our correspondent, Mr. G. Little, in our last Journal; and that after all this expense, it must come to Shepherd and Button's insulated chain conductor at last. It could be made stronger, be dropped on ground or rocks of whatever inequality, and not cost above one-half what the present experimental cable will.

An arrival of gold from Russia, to the extent probably of from 30,000*l.* to 50,000*l.*, is expected by the *Emperor* steamer, which was to leave St. Petersburgh last Tuesday.

According to the census taken just before the gold discoveries in New South Wales, the population of the town of Bathurst and Kelso was 2591.

The live stock of the colony of South Australia up to the end of the year 1850 was as follows:—Horses, 6488; cows, 24,074; oxen, 42,222; calves, 13,027; sheep, 897,866; goats, 1297; swine, 13,581.

RAILWAY TRAFFIC.

The aggregate traffic on railways in the United Kingdom, published weekly, from the 1st of January to the 20th of Sept. inclusive, amounted to 10,652,479*l.*; corresponding period of 1850, to 9,251,984*l.*; corresponding period of 1849, to 8,044,769*l.*; and in 1848, to 7,279,732*l.*—showing an increase in 1851 over the corresponding period of 1850 of 1,400,490; an increase in 1850 over the corresponding period of 1849 of 1,207,220*l.*; and in 1849, over the same period in 1848, of 765,037*l.* The traffic receipts in the above period averaged, in 1851, 1684*l.* per mile; in 1850, 1662*l.* per mile; in 1849, 1717*l.* per mile; and in 1848 they averaged 1913*l.* per mile. The traffic receipts on railways during the week ending Sept. 20, amounted to 339,136*l.*, being at the rate of 53*l.* per mile per week, and exceeding by 54,838*l.*, the receipts of the corresponding period of 1850. The gross receipts of eight railways having their termini in the metropolis amounted to 169,023*l.* for the week ending as above; and for the corresponding week of last year to 129,099*l.*—showing an increase of 39,924*l.* The increase on the Eastern Counties amounted to 2554*l.*; on the Great Western, to 7523*l.*; on the Great Northern, to 5866*l.*; on the Blackwall, to 358*l.*; on the London, Brighton, and South Coast, to 1191*l.*; on the London and North-Western, to 13,769*l.*; on the London and South-Western, to 5238*l.*; and on the South-Eastern, to 3425*l.* The aggregate increase as above was 39,924*l.*, being 73·6 per cent. of the total increase of traffic on railways in the United Kingdom, and leaving but 27·2 per cent. increase on the other railways—the aggregate receipts on which are about the same as those on the metropolitan lines.

New Patents.

LIST OF PATENTS GRANTED DURING THE PAST WEEK.

F. H. Thomson, Berner's-street; and G. Foord, Wardour-street, for improvements in bending and annealing glass.

C. Green, Birmingham, for improvements in the manufacture of brass tubes.

R. A. Brooman, of the firm of J. C. Robertson and Co., Fleet-street, for improvements in presses and in pressing.

R. Roberts, Dolgelly, Merionsth, an improved method of quarrying certain substances.

C. Watt, Kennington, for improvements in the decomposing of saline and other substances, and in separating their component parts, or some of them, from each other; also in the forming of certain compounds or combination of substances, and also in the separating of metals from each other, and in freeing them from impurities.

J. Garforth, Dukinfield, for certain improvements in locomotive steam-engines.

D. S. Brown, Old Kent-road, for an improved agricultural implement.

E. Maemmerer, Blomberg, Prussia, for his invention of improvements in sowing, depositing, or distributing seeds over land.—*Mechanics' Magazine.*

Current Prices of Metals, Stocks, & Shares.

METAL MARKET, London, September 26, 1851.

	per ton.
ENGLISH IRON. *a*	
Bar, bolt, & square, London	£5 5-5 7 6
Nail rods	6 0 0-6 5
Hoops	7 0 0-7 5
Sheets (singles)	7 12 6-8 0 0
Bars, at Cardiff & Newport	4 7 6-4 10
Refined metal, Wales*	3 0 0-3 5
Do. anthracite*	3 10 0
Pigs in Wales	3 0 0
Do. do. forge	2 5 0-2 10
Do., No. 1, Clyde *net cash*	1 19-2 0 0
Blewitt's Patent Refined Iron for bars, rails, &c., free on board at Newport*	3 10 0
Do., do., for tin-plates, boiler plates, &c., ditto	4 10 0
Stirling's Patent Toughened Pigs in Glasgow	2 15 0
Ditto in Wales	3 10-3 15
Staffordshire bars, at the works	5 5 0
Rails	4 15 0-5 10
Chairs (Clyde)	4 0 0
FOREIGN IRON. *b*	
Swedish	11 10 0
CCND	17 10 0
PSI	—
Gourieff	—
Indian Charcoal Pigs in London	5 10 0
FOREIGN STEEL. *c*	
Swedish keg	14 1 -15 0
Ditto faggot	15 0 0
ENGLISH COPPER. *d*	
Sheets, sheathing, & bolts, *p. lb.*	0 0 9¼
Tough cake *per ton*	84 0 0

Tile	£83 0 0
Old copper *e* *per lb.*	8¾*d*
Yellow Metal Sheathing	7¾*d*
Wetterstedt's Pat. Metal† *Cwt.*	1 11 0
FOREIGN COPPER. *f*	
South American, in bond	77 0-87 0
ENGLISH LEAD. *g*	
Pig *per ton*	17 0 0
Sheet	18 10 0
Pipe	19 0 0
Red lead	19 0 0
White ditto	24 0 0
Patent shot	20 0 0
FOREIGN LEAD. *h*	
Spanish, in bond	17 0 0
ENGLISH TIN. *i*	
Block *per cwt.*	4 4 0
Bar	4 5 0
Refined	4 10 0
FOREIGN TIN *k*	
Banca, H. C.	4 0 0
Straits	3 19 0
TIN-PLATES. *l*	
IC Coke *per box*	1 4-1 4 6
IC Charcoal	1 8-1 8 6
IX ditto	1 14-1 14 6
SPELTER. *m*	
Plates, warehoused *per ton*	14 2 6
Ditto, to arrive	14 2 6
ZINC. *n*	
English sheet *per ton*	21 0 0
QUICKSILVER *o* *per lb.*	3*s* 6*d*

Terms.—*a*, 6 months, or 2½ per cent. dis.; *b*, ditto; *c*, ditto; *d*, 6 months, or 3 per ct. dis.; *e*, 6 months, or 2½ per cent. dis.; *f*, ditto; *g*, ditto; *h*, ditto; *i*, ditto; *k*, net cash; *l*, 6 months, or 3 p. ct. dis.; *m*, net cash; *n*, 3 months, or 1½ p. c. dis.; *o*, ditto, 1½ dis.

* Cold-blast, free on board in Wales. † Dis. for cash in 14 days, 10 per cent.

WELSH BAR-IRON is dull of sale. In rails, there are still large orders in the market. The Egyptian contracts have been taken by two large houses, at rates which have not transpired.

STAFFORDSHIRE IRON is in good demand.

SCOTCH PIG-IRON has again submitted to a reduction of 6d. per ton. No. 1, American brands, may be quoted at 40s. 6d. free on board in Glasgow, storekeepers' warrants; ordinary brands, makers' obligations, 38s. 6d., No. 1, 39s. 6d.; storekeepers' warrants, mixed numbers, free on board, 39s.

SWEDISH IRON is in fair request.

COPPER is in good demnd; some large parcels have arrived from Coquimbo.

BRITISH TIN—In common, a good business has been doing for shipment; refined continues scarce. FOREIGN TIN—Some small sales have been made at 79*l.*

SPELTER—About 500 tons have been contracted for delivery in Jan. next, at 14s. 2s. 6d.

LEAD is in tolerable request.

TIN-PLATES may be quoted at 6d. per box cheaper.

GLASGOW, SEPT 25.—The pig-iron market has been very quiet throughout the week, and prices are a shade in favour of buyers; there has, however, been a great scarcity of vessels, which has prevented shipments being made:—

Mixed Nos., good brands, free on board here		39s. 0d. per ton.
No. 1	„ „	39 6 „
No. 1, Gartsherrie	„ „	41 0 „

MINES.—In the mining share market, business has been rather flatter, and lower prices have been taken generally for dividend mines. The state of the market is most anomalous; inasmuch as first-rate mines, likely to be of a lasting character, and with every probability of paying increased dividends, are selling at reduced rates; while schemes of a doubtful nature nominally maintain the high rates they are quoted at. Such a state of things, it may be urged, cannot last, but, while it does, a large amount of mining capital is abstracted from its legitimate source, and the unfortunate adventurers stand every chance of becoming the innocent victims. These are the "weeds" which the Mining Exchange Committee should have extirpated, but which since the issue of their proclamation, through their secretary, they have allowed to become "rank" and "gross," although the committee had in their own hands the power of clearing the market of them, had they, with as much firmness of purpose as profession, continued their originally understood intentions. Mining, and the large wealth to be acquired by it, under judicious management, will be avoided by the capitalist, unacquainted with its pursuits, as long as specious and absurd schemes continue to be put before the public, with high-sounding names, and pretensions of possessing the same lodes, &c., as adjacent rich mines and localities. The public take them up, and jump at the conclusion of a short cut to wealth, without consideration or consultation of well-informed and disinterested parties; but as sure as water finds its level, so will such such schemes turn up blanks, and be expunged from the list, while those honestly-conducted and well-worked will take their places among the dividend mines. The present abundance of money, and the excellent prospects before us, lead us to expect that fair and legitimate mining pursuits will be carried out with more vigour and larger remunerative profits than ever: the good plants will rise and flourish, while the too numerous "weeds" will pine and decay.

In the Metal Market,—Copper is in fair demand, at firm prices.—Lead is without alteration.—English Tin moves off in small parcels at full rates: and Foreign remains in the same languid state as last week.—In Tin-Plates not quite so much doing, and prices are a turn in favour of the buyer. —Spelter is rather depressed.

The standard of copper ore at Thursday's ticketing was 101*l.* 3s., produce 7¾, against 103*l.* 8s., and 7⅞, on the sale of the preceding month.

The price of gold in bars (standard) is 3*l.* 17s. 9d. per oz. A further decline of ¼d. has been established in the price of bar silver, which is now quoted 5s. 0¼d. per oz., and even at this reduction the quotation is merely nominal, as no business has been done, and the supplies by the West India steamer, *Avon*, are still pressing on the market.

The London imports for the week comprise—from Hamburg, 919 plates spelter; Stettin, 9512 plates spelter; Antwerp, 90 cases 46 casks zinc, 70 cases 15 casks spelter; Dantzic, 1300 plates spelter, 1723 plates zinc; Coquimbo, 33,696 ingots copper, 1 bag silver ore.

At Liverpool—from Carthagena, 2397 barrels lead.

At Hull—from Hamburg, 5817 plates spelter.

The arrivals at Swansea include—500 tons of copper ore from Cuba, and a cargo of copper ore from Algiers.

In making up our returns of the public sales of copper ores for the present quarter, which we shall give in our next Journal, we find the total amount sold in Cornwall to have been 36,457 tons, producing 193,066*l.* 10s. 6d., and fine copper 2933 tons 12 cwts., with an average produce of 8·05, and price 5*l.* 6s., being a decrease from the sales for the quarter ended 30th June last of 3245 tons, and fine copper 150 tons 19 cwts., and in money 8599*l.*, the latter having been 39,702, amount in money 201,665*l.* 14s., and fine copper 3084 tons 11 cwts., with an average price of 5*l.* 1s. 7d., and produce 7·769. We find, from a casual glance at the ticketings, that of the six leading mines in last quarter's returns, Devon Great Consols sold 4875 tons, realising 28,394*l.* 12s. 6d., being an increase of nearly 1000*l.*, and 175 tons of ore; the United Mines 1346 tons, producing 6228*l.* 11s., with 466 sold on Thursday to take into account, but still a decrease; Par Consols 1528 tons, realising 10,501*l.* 17s. 6d., with 246 sold on Thursday—an increase; Carn Brea 1813 tons, realising 10,007*l.* 9s. 6d. —a slight decrease; Wheal Basset 1172 tons, realising 7348*l.* 4s. 6d.—a decrease; and Fowey Consols 1231 tons, realising 6320*l.* 13s. 6d., being a falling off of above 1800*l.* It would be premature to go further into the subject at present, as we shall give the usual full particulars in our next.

The Linares Mines have disposed of their parcel of pig-lead, 94 tons (including the silver in it), at 17*l.* 5s. per ton.

Roughtongill Mine sold 11½ tons lead ore at 14*l.* 17s. 6d., and 16 tons at 11*l.* 18s. 6d. per ton, to Walker, Parker, and Co.

The Montgomery Mines sold 10 tons of silver-lead ore, at 10*l.* 2s. 6d.

Lamherooe Wheal Maria sold two small parcels of black tin, which realised 48*l.* 12s.

The Lewis Mines sold two parcels of black tin to the Mellanear Smelting House—6 tons 16 cwts. 2 qrs. 27 lbs. at 50*l.*, and 1 ton 11 cwts. 0 qrs. 9 lbs. at 46*l.* 2s. 6d. per ton, realising 413*l.* 10s. 5d., and double that quantity to the Union Tin Smelting Company, making the total 1240*l.* 11s. 3d.

Hingston Down Consols weighed about 100 tons of good quality ore yesterday.

The Treviskey accounts for June and July show—By amount of ore sold on the 29th May, 2035*l.* 18s. 3d.; tin sold, 39*l.* 18s. 6d.; junk sold, 17*l.* 6s. 9d.=2093*l.* 3s. 6d.—Labour cost for June and July 454*l.* 17s. 11d.; tributers' part of ore, 283*l.* 12s. 10d.; merchants' bills, &c., 203*l.* 12s. 3d.; Tresavean adventurers' water charge, 196*l.* 15s. 2d.; lord's dues (1-12th), 172*l.* 19s. 6d.: showing profit, 781*l.* 5s. 10d.; add balance in hand end of May, 18*l.* 4s. 3d.=799*l.* 10s. 1d.—By dividend of 6*l.* 10s. per share, 780*l.*, leaves now in hand, 19*l.* 10s. 1d. Capt. J. Jennings' report is among our Mining Correspondence, by which it will be seen that the prospects are improved, and the dividends likely to be greater from future workings.

At United Mines meeting, on Friday, the accounts, for July and August showed—Balance from last account, 2077*l.* 18s. 4d.; ores sold (less dues), 6475*l.* 19s. 8d.; sundry receipts, 52*l.* 13s. 5d. = 8606*l.* 11s. 5d.—Mine costs and merchants' bills, 4726*l.* 4s. 1d.; tributers' balances, 1659*l.* 0s. 7d.; dividend of 2*l.* 10s. per share, 500*l.*: leaves balance in favour of adventurers of 1721*l.* 6s. 9d.

At East Wheal Crofty meeting, on Tuesday, the accounts for July and August showed—Balance last account, 1250*l.* 0s. 10d.; ores sold (less dues), 1415*l.* 9s. 1d.; discount, income tax on dues, &c., 23*l.* 12s. 4d. = 2689*l.* 2s. 3d.—To mine costs and merchants' bills, 1889*l.* 14s. 11d.: leaving balance in hand, 799*l.* 7s. 4d.

At West Wheal Frances meeting, on Tuesday, the accounts for five months, ending August, showed—Balance last account, 99*l.* 11s. 9d.; costs and merchants' bills, 602*l.* 19s. 5d. = 702*l.* 11s. 2d.—By call in May, 512*l.*: leaving balance against adventurers, 190*l.* 11s. 2d. A call of 1*l.* per share was made.

The quarterly meeting of the adventurers in Wheal Williams was held on Thursday. The cash account showed a balance of 1111*l.* 14s. 9d. unexpended, which would carry on the works for a considerable time; and the balance of assets over liabilities was 1967*l.* 19s. 7d. The water has been forked to the bottom (or 30 fathom level) of the south shaft, which is nearly cut down to the same point; and the lode standing in the ends is 3 to 4 ft. wide, containing capel, mundic, peach, quartz, gossan, and rich copper ore, samples of which are at the offices in London. The committee state that they have been advised to confine the operations to this part of the mine for the present, by driving the 30 fm. level east and west, and continuing the sinking of the shaft; "and, judging from the appearances of the lode, and its being a continuation of that at Devon Great Consols, which adjoins Wheal Williams, its character and the description of the strata it is embedded in being precisely similar, together with the quantity and quality of the ore found in the shallow levels, there is every probability of the results being successful."

At Clyjah and Wentworth United Mines meeting, on the 16th inst., the accounts showed—Book in debt end of March, 305*l.* 10s.; labour cost for April, 22*l.* 19s. 5d.; May ditto, 26*l.* 16s. 4d.; June, 44*l.* 17s. 7d.; July, 139*l.* 2s. 10d.; merchants' bills, engine, pitwork, &c., 561*l.* 6s. 4d. = 1100*l.* 12s. 6d.—By call of 10s. per share, 512*l.*: leaves balance against adventurers, 588*l.* 12s. 6d. A call of 1*l.* per share was made. The report of Captains J. Miners and W. Gribble, giving a highly favourable account of present appearances, will be found among our Mining Correspondence.

At Wheal Vincent two-monthly meeting, on the 20th inst., the purser submitted the two-monthly statement of disbursements, assets, and liabilities, showing a balance due by the mine to 31st July of 125*l.* 6s. 4d. after the present arrear of calls due, amounting to 169*l.* 1s. 4d., are paid; the cash balance at the bank being 21*l.* 14s. 6d. A special meeting is to be held on the 30th inst., to declare the forfeiture of all shares in arrear of calls, and to decide on a proposition made by Mr. Northam, to the effect that he undertakes to sink the shaft, cut the lode in the 20 fm. level, and bring the ore to surface, for the sum of 50*l.* Mr. Murray, being about to visit Cornwall, was requested to make inquiries of Mr. Northam and other parties as to the terms on which they will contract to clear out the old lobby and sink the present shaft to the lode, and report to the forthcoming meeting.

At East Basset meeting, on Saturday last, the accounts showed—Balance from last account, 766*l.* 0s. 10d.; labour cost to the end of August, 616*l.* 14s. 1d.; merchants' bills (which include all the bills for engine, rods, &c.), 574*l.* 0s. 6d. = 1956*l.* 15s. 5d.—Call, 15th May, 1280*l.*: leaving balance to next account, 676*l.* 15s. 5d. A call of 5*l.* per share was made. The engine-shaft is nearly 10 fathoms under adit. North of the lode the water is so trifling, that they hope to sink 8 or 10 fms. deeper without the necessity of putting the steam on, the progress in sinking being about 1 fm. per week. The adit is extended 30 fms. east, in a very kindly lode. The cost in future will be considerably lessened, the charge for heavy work being included in the above.

The Braich Goch Slate Quarry Company appears to be progressing well: from a letter, furnished us by Mr. Nicholls (the superintendent at the quarries), we learn, that on driving the level into No. 5 bargain for slate, a lead vein has been discovered; it is quite plain and defined, taking about the same direction as the water-course from the mountain: several veins of quartz containing lead are traversed; the great vein is about 50 yards from the cutting. This discovery, which is of considerable importance to the shareholders, will receive attention from the inspecting engineer, Mr. St. Pierre Foley, on his next visit, when a fuller account will be furnished us. The property was made over to the adventurers on the 1st inst. Mr. Foley has been for some time superintending the works of the Crookhaven Mining Company, in the county of Cork.

At Prince Albert Tin and Copper Mine meeting, on Thursday, the accounts showed—By calls to date, 242*l.* 1s. 9d.; tin sold, 26*l.* 9s. 1d. = 268*l.* 10s. 10d.—Mine costs, &c., to end July, 195*l.* 12s. 11d.: leaving balance in hand, 72*l.* 17s. 11d. The assets are—Cash in hand, 72*l.* 17s. 11d.; arrears, 57*l.* 18s. 3d.; tin in stock (say), 100*l.*; call of 5s., made this day, 150*l.*=380*l.* 16s. 2d. The liabilities—By Aug. and Sept. costs, 100*l.*; expenses, water-wheel, &c., 200*l.*: leaving balance in favour of adventurers, 80*l.* 16s. 2d. The agent's report was considered highly satisfactory; and a call of 5s. per share made.

At the Wheal Russell meeting, the accounts for four months, to end of July last, showed—Balance last account, 61*l.* 5s. 4d.; labour cost for April, 186*l.* 7s. 2d.; ditto May, 269*l.* 4s. 2d.; ditto June, 205*l.* 17s. 3d.; ditto July, 187*l.* 8s. 3d.; merchants' bills, 195*l.* 4s. 2d.; dues, 55*l.* 18s. 11d. = 1161*l.* 5s. 3d.—By East Wheal Russell adventurers, balance purchase of sett, 400*l.*; ores sold, 760*l.* 4s. 9d.; West Wheal Russell adventurers, for part costs for four months, 204*l.* 4s. 8d.: leaving balance against adventurers, 1s. 0s. 6d. Various propositions having been made for working the southern parts of the sett, it was resolved that the same be referred to meeting, held on the 17th inst., the result of which meeting we have not received. A call of 4s. per share was made. The piece of ground applied for is the southern projection, in a bend of the Tamar, north-west of George and Charlotte, and east of Slimeford setts, and is looked to by some as being of considerable promise, the Zion and Slimeford lodes intersecting it. The agent's report will be found in another column.

At North Wheal Buller bi-monthly meeting, on the 17th inst. (John Whalley, Esq., in the chair), the accounts showed—Mine cost for July, 224*l.* 8s. 7d.; August ditto, 222*l.* 1s. = 446*l.* 9s. 7d.—Balance from June, 276*l.* 15s. 10d.; bank interest, 19s. 7d.: leaving balance of 168*l.* 14s. 2d. A call of 1*l.* per share was made. The chairman reported that he and Samuel Ashton, Esq., had visited the mine, and had it closely inspected, and were well pleased to find their money had been judiciously expended; that their opinion as to the ultimate benefits to be derived from the mine was in no way diminished, although the amount paid and time occupied had been greater than expected; and taking into consideration the richness of the mines by which it is surrounded, the development of the same lodes upon which they are working by other mines around, they have no doubt as they get deeper this will become a valuable property. The report of Captain Stephens (of Wadebridge), who accompanied the directors in their inspection, was ordered to be circulated among the proprietary. We insert among our Mining Correspondence the report received from Capt. Sincock, the manager.

At West Alfred Consols bi-monthly meeting, on the 16th inst., the accounts showed—Balance last account (less the call, 768*l.*), 17*l.*; labour cost for June, 282*l.* 16s.; July, 292*l.* 4s. 11d.; merchants' bills, 498*l.* 18s. 3d. = 1090*l.* 19s. 2d.—By lead sold, less lord's dues, 15*l.* 5s. 4d.: leaves balance to next account, 1075*l.* 13s. 10d. A call of 1*l.* per share was made. Field's engine-shaft is down 9 ft. below the 75 fm. level, sinking at 24*l.* per fm.; in 5 fms. deeper they expect to have the lode in the shaft. The lode in the 75 west is worth 7*l.* per fm. The stopes in the bottom of the 60 are worth 20*l.* per fm. The 55, west of old sump, is worth 8*l.* per fm.; the tribute ground in the back is looking well. At South Ann the flat-rod shaft is cleared 9 fathoms below adit, and the rods are expected to go to work immediately.

At the East Wheal Reeth bi-monthly meeting, on the 10th inst., the accounts showed—Balance from last account, 107*l.* 2s. 4d.; calls received, 122*l.* 11s. 6d. = 229*l.* 13s. 10d.—Mine cost for June and July, 104*l.* 1s. 8d.: leaving balance in hand, 125*l.* 12s. 2d.; add arrears of calls due, 272*l.* 3s. = 397*l.* 15s. 3d.—Deduct due for engine, 195*l.*; other debts, 108*l.* 3s. 11d., would leave balance in favour of mine, 94*l.* 11s. 4d. The engine works well and steadily. The 24 is good ground for driving, and congenial for tin. The draft lease of the mine being deemed satisfactory, it was resolved

to have it engrossed and completed; and all shares standing in arrear on Thursday last are absolutely and irrevocably forfeited.

At Great Wheal Alfred meeting, on the 16th inst., the accounts showed —Balance last account, 1050*l.* 13s. 8d.; labour cost for June, 308*l.* 6s. 11d.; July, 301*l.* 5s. 7d.; club and doctor, 6*l.* 8s. 4d.; boilers complete, 957*l.*; capstan and chains, 365*l.* 16s.; castings and timber, 377*l.* 4s. 5d.; other merchants' bills, 375*l.* 9s. 10d.=3742*l.* 4s. 5d.—Call in July, 1536*l.*: leaving balance to next account, 2206*l.* 4s. 5d. A call of 2*l.* per share was made. The engineer reports that the engine will go to work about the middle of October next.

At the East Balleswidden two-monthly meeting, on the 23d inst., the accounts showed—Mine cost, &c., to the 24th July, 828*l.* 17s. 10d.; ditto to date, 401*l.* 12s. 3d.=1230*l.* 10s. 1d,—Cash on account of calls to the 24th July, 999*l.* 10s.; tin sold, 20*l.* 3s.; on account of calls to date, 190*l.* 15s.: leaving balance due to secretary, 20*l.* 2s. 1d.—The assets show: To arrears of calls, 265*l.* 15s.; call of 7s. 6d. per share made this day, 384*l.*= 649*l.* 18s.—The liabilities are: Balance to secretary, 20*l.* 2s. 1d.; bills unpaid, 266*l.* 13s. 9d.; costs for Aug. and Sept., 270*l.*: estimated balance in favour of adventurers, 92*l.* 19s. 2d. The agent's report was considered very satisfactory—1100 sacks of tin stuff reported at grass, worth 80*l.* A call of 7s. 6d. per share was made, payable within 14 days.

At Wheal Venton two-monthly meeting, on Thursday, the accounts showed a balance in hand of 214*l.* 9s., and a balance of assets over liabilities of 92*l.* 3s. [For a report on the mine, see our Mining Correspondence.]

At Wellington Mines meeting, on the 17th inst., the accounts showed a balance against the concern of 127*l.* 10s. 2d.

At Wheal May general meeting, on Thursday, the accounts showed—Balance last account, 222*l.* 7s. 3d.; July cost, 91*l.* 18s. 3d.; Aug. ditto, 103*l.* 0s. 9d.; Capt. Carpenter, 3*l.*=420*l.* 6s. 3d.—Payments made on account of July and August costs, 154*l.* 8s. 9d.; acceptance to Ash Swift and Co., 50*l.*; William Symons balance for lease, 43*l.* 4s.; other expenses, 25*l.* 4s.: leaving balance, 147*l.* 9s. 6d.—The assets consist of 24*l.* 11s. 6d. cash in hand; all the calls due on 23 shares unrepresented, 34*l.* 10s.; arrears on call, 29th May, 8½ shares, 4*l.* 5s.; and upon 335 shares the 5s. call due 30th July=147*l.* 1s. 6d.: leaving a debtor balance of 8s. A call of 5s. per share was made: 82 shares, independent of the foregoing, were declared absolutely forfeited and abolished, the number being reduced to 942. Prior to the next meeting they calculate upon seeing the lode in the 20 fm. level. The accounts were audited, and ordered to be printed and circulated among the shareholders,

At the Moditonham and Marraborough meeting, on Thursday, the accounts showed—Balance last account, 130*l.* 19s. 3d.; arrears of calls paid, 50*l.* 2s.; paid on call made, 23d July, 178*l.* 5d. = 359*l.* 6s. 3d.—By cost, July, 53*l.* 10s. 10d.; ditto Aug., 100*l.* 4s. 4d.; paid on account of engine, 100*l.*: leaves balance in favour of adventurers, 105*l.* 11s. 1d. It was resolved that all shares on which any call hitherto made is now in arrear for more than 21 days after the time fixed for payment be forfeited, and that the same may be sold for the benefit of the company; but that the committee have power to restore the same before actual sale, on payment of the arrears, costs, and expenses; and that they be authorised to appoint Mr. Adam Murray, or some other competent person, to inspect and report on the mine, and the state and cost of the buildings. A call of 5s. per share was made. The report from Capt. Billing will be found elsewhere.

At Wheal Speedwell meeting, on the 17th inst., the accounts showed—Balance last account, 853*l.* 2s. 11d.; labour cost for June, 110*l.* 2s. 4d.; July, 122*l.* 8s. 1d.; merchants' bills, 211*l.* 8s. 7d.=1297*l.* 1s. 11d.—Call, 17th July, 1024*l.*: leaving balance to next account, 273*l.* 1s. 11d. A call of 5s. 4d. per share was made to discharge the same. Returns are expected in future to meet part of the expenditure, The 30 is down, and plunger lift ready to sink below. The lode in the end east is yielding tin worth about 10*l.* per fm. The north winze is worth 20*l.* per fathom for copper ore. The pitches generally are looking well. The engine is calculated to drain the mine three times its present depth; it works well, consuming only 15 tons of coal per month, going two strokes per minute. About 40 tons of copper ore will be sampled 28th October.

At the St. Aubyn and Grylls meeting, on the 17th inst., the accounts showed—Copper ore sold, 329*l.* 15s. 2d.; tin, 107*l.* 6s. 6d.; call, 21st of May, 512*l.*=949*l.* 1s. 8d.—Balance last account, 352*l.* 3s. 7d.; labour cost end July, 438*l.* 14s. 9d.; dues, 24*l.* 5s. 8d.; materials, 36*l.* 14s. 5d.: leaving balance in hand to next account, 97*l.* 3s. 3d. The 25 east and west of James's is a good lode for tin, the backs working at 4s. tribute. James's shaft is about to be sunk deeper. The adit east of Field's shaft is in a kindly lone for copper ore. The pitches are generally doing well, and the returns are equal to the expenditure for some months to come.

At Devon Burra Burra the Gate-Post lode was cut on Wednesday afternoon, in the adit driving east, and is precisely in character, as to strata and copper, like the specimens at St. Dunstan's Hill. The lode being a caunter one, between two large cross-courses, had, up to that period, eluded the active search made for it; there is no longer any question about the fact.

The steam-engine at Wheal Crebor was moved off last Saturday, and finally set to work on Wednesday. It is expected that the water will be forked to the 12 fm. level under adit the latter part of next week. The underground works will then be prosecuted with vigour, and in a few months successful results may be anticipated.

A rich copper lode has been cut at Botallack Mine.

At Allt-y-crib Mines the vein has been discovered by cross-cutting from the engine-shaft in the bottom level, and yields 2 tons of good silver-lead ore per fathom. The manager expects to forward the accounts to London in time to declare a dividend in the course of next week.

A rich pile of ore has been brought out from the lode at East Wheal Russell, some very fine specimens of which may be seen at the office in London.

At Wheal Fortune (Landulph) they have some rich spots of silver, and fine cubes of silver-lead are met with in abundance: the lode is 6 in. larger than when reported on by Capt. Penaluna last week.

At Devon Consols North, the ground is equally as good for sinking as ever, and the lode is now 8 ft. wide, with spots of black and yellow ore.

At Bedford United the lode in the 103 east is worth 26*l.* per fm. In Lintern's winze the lode is worth 40*l.* per fm. for the length of the winze (9 ft.), and in Rundle's winze 35*l.* per fm.

At Trannack and Bosence Mines they have cut the lode in the 20 at Hampark shaft, west of the flookan, 3 ft. wide, worth 8*l.* per fathom for copper ore; the ends east and west are driving at 25s. per fm., the lode west worth 5*l.* per fm. In Glasson's winze, below the 10, the lode is for 15 in. on the south part, producing good quality ore, worth 10*l.* per fm. At Bosence they are making every preparation for the erection of engine, boiler-house, &c.

At Boringdon Park Mine, the steam-engine will be set to work in about three weeks.

At East Boringdon, the lode was cut into 2 feet on Wednesday; it is composed of prian, mundic, spar, and lead. The branch of lead cut in the shaft will drop into the lode 6 or 7 fms. deeper, where it is confidently expected to be rich.

At South Wheal Tolgus the lode in the rise upon the south lode, in the back of the 56 fm. level, is worth 1½ ton per fm. Youren's lode in the 42 west yields 1 ton, east of Wearne's winze 1 ton, and the 32 west ½ ton of copper ore per fm. In other respects the mine is quite as good as when last reported.

Business has been transacted in Alfred Consols, West Providence, Trelawny, Spearne Consols, Wheal Buller, Mary Ann, Treviskey and Barrier, South Tolgus, Hingston Down, Devon and Courtenay, East Russell, Condurrow, West Caradon, Treleigh, Herodsfoot, Venton, Tremayne, West Alfred Consols, Kenmare, South Tamar, Penzance Consols, Wheal Reeth, Butterdon, Merllyn, Wheal Arthur, Wheal Zion, Wicklow, Crebor, Cefn Gwyn, Bolenowe, West Basset, Bodmin Wheal Mary, Devon Consols North, Llwynmalees, Bedford United, Carvannall, Great Bryn, Wheal Fortune, Wheal Samson, Boringdon Park, Wheal Golden, Mining Company of Ireland, and Kirkcudbrightshire.

In Foreign Mines, the transactions have been but few—Cobre, Copiapo, Santiago, United Mexican, Australian, Worthing, and Mexican and South American.

The Linares Company have received advices from Mr. Henry Thomas to the 13th inst., announcing the arrival of the pitwork, per *Pepita*. The three shafts are sinking with little or no hindrance. The 55, west of Wilson's, has been producing from 7 to 8 tons, and is still yielding from 5 to 6 tons of copper ore per fm. The men that were sinking the winze below the 45 being impeded by water, have been put to stope east of San Juan shaft, preparatory to sinking a winze at that point, and thus make available the ore ground opening in the 55. In the 45, east of Shaw's shaft, the lode is worth 1½ to 2 tons per fm., and opening tribute ground. The tribute department is looking well. Lead ore weighed in to date, 50 tons 7 cwts.: total in stock, 371 tons 1 cwt. Pig-lead smelted to date, 25 tons 6 cwts.: total in stock, 37? tons 10 cwts.

The Copiapo Mining Company have received advices from the mines under date the 24th July, a full copy of which will be found in another column. The prospects at Checo are as last reported; a cross-cut in the 60 has been commenced, and the south lode is expected to be cut by the end of the month. At La Compania the stopes in the back and bottom of the 10 continue to yield well. The other copper mines are progressing favourably, the produce for June being 55 tons. The silver mines are much as in last month's advices. The Chilian Government have issued a decree that the duties on bar silver and copper ore (6 per cent., equal to 7s. 6d. per ton), as well as that on other metals, be gradually reduced, so that in about four years time no export duties will be levied thereon; likewise that the greater portion of the import duties on mining materials shall cease, and be free, or nominally so, from October next. This is a very liberal concession on their part, and the mines cannot fail benefiting considerably in consequence. A railroad has been laid down from the port of Caldero 24 miles, being half way to the city; the remainder part is in progress, the whole capital being found exclusively in that place. The expected supply of English miners, per *Forfarshire*, cannot fail to increase the future monthly returns. We are much gratified to learn that E. J. Cole, Esq., has been appointed the secretary to this company.

The Royal Santiago advices are to 6th August. The water has been drained out of the 22 fm. level, and driving resumed. A rise has gone up against Taylor's shaft quite dry, and although only 6 ft. between the communication the shaft continues very wet, leading them to conclude that a flookan must be between, which keeps up the water; they hope to hole through in a week. The 15 west is improved, and yields some good quality ore. The winze west has been communicated to the level under, and promises well to lay open ground for tributers. They have 90 tons of ore cleaned, and about that quantity of stuff at surface.

The circumstances detailed in the recent address of the Anglo-Brazilian merchants at Manchester to Lord Palmerston, relative to the Anti-English measures to which the Brazilians have been impelled by the wanton aggressions of our cruisers on their flag, have naturally created strong apprehensions among the mining, as well as other interests, connected with that country. Much disappointment is felt at the omission in his Lordship's speech at Tiverton to make any allusion to the Manchester remonstrance, or to state if, in his opinion, there were really any legal grounds for our naval officers committing acts which the Brazilians protest are a flagrant infraction of the law of nations, but which they are resolved shall not be repeated with impunity, as they have invited the Americans to protect them, by enforcing on the part of England an observance of the stipulations of the treaty for the suppression of the slave trade—Lord Palmerston himself having borne testimony to the honourable and zealous fulfilment of its provisions by Brazil. It is greatly to be regretted that any thing should have occurred to interrupt the fast growing friendliness of Brazil towards England; and from the cultivation of which feeling the most substantial advantages were accruing to both countries. For a considerable time back, almost every mail from Rio has brought evidence of the extension of the field there for English investments and the employment of English industry—banks, gas and water-works, railway and engineering operations of more or less magnitude; and for some years back an important, though numerically not very extensive, emigration has been going on hence to Brazil, whose Government offered strong temptations to all classes of British labourers to settle there. It is to be hoped, therefore, that there will be a speedy resumption of the sentiments hitherto existing on the part of the Imperial Executive towards Great Britain, and that Lord Palmerston will not suffer an anxiety for prize money and promotion among the commanders of our squadron to tempt them to excesses, which will find easy palliation here, as long as they can be mixed up with the question of the slave trade—no matter how erroneously, and no matter how much to the detriment of the unoffending victims of the pretence.

A fair amount of business has offered during the week in the market for Bank shares and prices, in many instances, show an improving tendency. Sales are reported as follows:—Amsterdam (40*l.* paid), 38⅞; British North American (50*l.* paid), 45; Colonial (25*l.* paid), 10¼, ⅜; London Joint-Stock Bank (10*l.* paid), 18¼, ⅜; National of Ireland (22*l.* 10s. paid), 17, 17⅛; Provincial of Ireland (25*l.* paid), 42⅝; South Australia (25*l.* paid), 25⅝; Union of Australia (25*l.* paid), 35⅛, ⅜; Union of London (10*l.* paid), 14⅛.

Prices of Dock shares remain as before, except Southampton shares, which have been offered more freely. Commercial Stock is quoted 84; East and West India, 142; London, 115, 114½; St. Katherine, 78½, 79; Southampton, 17½, 17, 16½, 16⅝.

Shares in the established steam-boat companies have been flatter this week, and a considerable fall has occurred in Peninsular and Oriental old shares. The following are the last rates:—Peninsular and Oriental Steam, 65, 64, 66, 64½; Royal Mail Steam, 79½. Payment has been made of the 5*l.* call on the Peninsular and Oriental new shares—making 10*l.* paid, and transactions are reported in these at 15, 15½, and 15.

Insurance shares have met with an increased degree of inquiry, and the market for these securities is altogether firmer. The following are quoted at an improvement on last week's rates:—Atlas, at 16⅝; British Commercial, 7½; Globe, 133; Law Fire, 3⅝; National Loan Fund, 2⅝. Indemnity Marine shares, on the other hand, are worse, and worth only 49.

Miscellaneous stocks and shares are quoted as follows in the official list:—Assam Tea Company, 8; Australian Agricultural, 15; Australian Trust, 20½; Anglo-Mexican Mint, 24; Canada Company, 49½; Hudson's Bay Stock, 206; Price's Patent Candle Company, 23; South Australian, 23¼; Van Diemen's Land, 1.

HULL, THURSDAY.—Messrs. T. W. Flint and Co. state that mining shares are rather better to sell, but quotations have not advanced. Alfreds, Tremaynes, and Befords are wanted: Trefusis, Wellingtons, and East Gunnis Lake offered.

It is gratifying to find that the spirited and persevering efforts, principally brought into action through the exertions of Mr. Michael Williams, for the re-working the United Mines by a new company, which in the early part of this year were well nigh abandoned, have been perfectly successful; and at the usual meeting yesterday week a dividend was declared, and a considerable improvement said to have taken place at Poldory in the 100 fm. level. A proposition was made by Mr. Willyams, M.P., and heartily responded to by his brother adventurers, that a testimonial should be presented Mr. Michael Williams for his public, spirited, and generous efforts to continue the working of these mines under the most discouraging circumstances. The subscriptions will not be confined to the adventurers, but the bankers in all parts of the county will receive subscriptions—in no case exceeding 5s., and as low as 1d., thus giving every member of the community an opportunity according to their means of expressing his estimation of the zealous endeavours of Mr. Williams to advance the mining interest, not only on this, but previous occasions.

ACCIDENTS.

Ballesvidden.—Two miners, while in the act of charging a hole, met with a shocking accident by the powder igniting—it is supposed by the friction of the ramming bar. One was burned severely about the face, while the other (Grose) had his head shattered awfully by a part of the rock—the hole having heaved its burthen. Poor Grose is since dead, and his companion is not expected to recover.

Wheal Margaret.—A sad accident occurred at this mine by the sudden influx of water into the shaft, by which three persons are supposed to be drowned. One man, named T. Trebilcock, has been found; the other two are still missing.—*Cornish Telegraph.*

West Caradon Mine.—R. Sargent was injured by falling into a winze, 9 fms. deep.—A sad accident also occurred to a poor boy, named Saunders, who, while feeding a crushing machine, unfortunately slipped his foot between the rollers which crush the raw ore, and had it completely severed from the ancle.

St. Austell Iron Mine.—As two men, father and son, named Northy, were at work underground, a scale of ground fell away, when the elder escaped unhurt, but the son was much hurt about the head and shoulder.

Pontypridd.—J. Gibbon (14 years old) met his death by a fall of rubbish in the pit of Mr. Ensol, of Cymmer. The poor boy ejaculated "Mother!" three times, and expired.—Another accident, nearly attended with fatal consequences, occurred in a level called Coedcae. It appears that Daniel Morgan entered the work with his dog, to pursue his avocation, when an explosion of fire-damp took place. He was seriously burned about the face and hands, and, strange to say, the dog was suffocated upon the spot.

Ilkeston.—J. Potter was killed by falling down the shaft of an ironstone pit.

Monmouthshire.—Two miners, Adams and Powell, were severely burned by fire-damp at the Risca Colliery.

Pontypool.—D. Davies was killed by the falling of a large stone at the New Pits.

Merthyr.—J. Patrick was killed by a fall of coal in one of the Plymouth pits.

Durham.—P. Bloomer was crushed between his tub and the roof, at Sherburn-House Pit.—G. Ritchie was killed by a fall of coal at Hedleyhope Colliery.

St. Helen's.—J. Horsley was killed by a fall of coal at Laffack Colliery.

COAL MARKET, LONDON.

PRICE OF COALS PER TON AT THE CLOSE OF THE MARKET.

MONDAY.—Ships at market, 69; sold, 58.

WEDNESDAY.—Ships at market, 46; sold, 43.

FRIDAY.—Buddle's West Hartley 15—Carr's Hartley 15—Davison's West Hartley 15—Redheugh Main 12 6—Tanfield Moor 14—Wall's-End Gosforth 15 6—Eden Main 16—Lambton 16 6—Scarborough 15 6—Tees 16 6—Birchgrove Graigola 19—Cowpen Hartley 15—Hartley 14 6.—Ships at market, 30; sold, 30.

COLLEGE OF PRACTICAL SCIENCE, NEWCASTLE.—Messrs. John Williamson, Chemical Works, South Shields, Charles Carr, Seghill, John Harbottle, Anick Grange, and R. S. Newall, Bensham, have become members of the provisional committee, formed to promote the establisment of a College of Practical Science in Newcastle.—*Gateshead Observer.*

TESTIMONIAL TO MICHAEL WILLIAMS, Esq.—

At the ADVENTURERS' MEETING at United Mines, on Friday last, it was proposed by Humphry Willyams, Esq., M.P., that a TESTIMONIAL should be presented to MICHAEL WILLIAMS, Esq., of Trevince, by the adventurers and working miners in the Gwennap district, for his spirited and generous efforts to continue the working of those mines, under the most discouraging circumstances, in the early part of the present year. This proposal was heartily and unanimously met by the adventurers present, and a committee was appointed to carry it into effect.

In pursuance of this intention, a MEETING of the COMMITTEE was held this day, at Andrew's Hotel, Redruth—present Messrs. H. Grylls (in the chair), R. R. Broad, E. H. Hawke, Thos. Garland, W. Burgess, John Little, and John Richards,—when the following resolutions were adopted:—

Moved by Mr. Broad, and seconded by Mr. Hawke,

That it having been pressed upon the attention of the committee that as the stoppage of the United Mines would involve the suspension of Consols, Poldice, and other extensive concerns, whereby several thousands of labourers would be deprived of their usual means of support, and the value of mining labour throughout the county be disastrously affected, an alteration should be made in the original proposal, so as to give an opportunity to all who appreciate Mr. Williams's public spirit, in relation to the general interests of the mining community, to show their gratitude and respect to that gentleman, it is resolved that for such purpose the subscription list will be open to the public at large.

Moved by Mr. Grylls, and seconded by Mr. Garland,

That as the Committee are sensible that the value which Mr. Williams may attach to the testimonial will depend more upon the number of contributors than upon its intrinsic worth, the smallest sums will be readily received, and in no instance will any amount be accepted above *five shillings*.

Moved by Mr. Burgess, and seconded by Mr. Little,

That the subscription lists be open till the 29th of Nov., and be closed on that day.

It was also resolved that Mr. H. Grylls (Moreton House, Redruth), be appointed Treasurer of the fund, and Mr. Garland (Fairfield, Illogan), be the Secretary of the Committee; also, that subscriptions be paid to the bankers throughout the county (several of whom have already signified their consent to receive the same), and to the following gentlemen —viz.: Mr. H. Grylls (the Treasurer), Redruth; Mr. R. Pearce, Penzance; Mr. S. James, St. Just; Mr. R. R. Michell, Marazion; Capt. Thomas Richards, Foundry House, Hayle; Mr. R. H. Pike, Camborne; Mr. W. Burgess, Illogan; Mr. Garland, Fairfield; Mr. Pryor, Town-hall, Redruth; Mr. Little, Redruth; Mr. H. Pearce, Royal Hotel, Truro; Mr. R. R. Broad, Falmouth; Mr. J. Morecome, St. Austell; Mr. E. H. Hawke, Tolgulla, St. Day; and Mr. W. Thomas Field, Mining Exchange, London.

On behalf of the Committee,
THOMAS GARLAND, Sec.

Andrew's Hotel, Redruth, Sept. 23, 1851.

LEAD ORES.

Sold at Aberystwith, on the 22d Sept.

Mine.	Tons	Price p. ton.	Purchasers.
Goginan	60	£14 10 0	Walker, Parker, & Co.
ditto	40	15 7 6	ditto
Frongoch	60	10 6 0	Newton, Keates, & Co.
Cwmystwith	50	10 4 6	Panther Smelting Co.

Total tons, 210.—Amount of money, £2933 15s.

Tickelings at the King's Head Hotel, Holywell, Sept. 25.

Pant-y-mwyn	25	£10 0 0	J. P. Eyton.
Pen-yr-henblas	58	10 12 6	Newton, Keates, & Co.
Westminster	50	10 16 0	Walker, Parker, & Co.
ditto	50	10 16 0	ditto
ditto	50	10 16 0	ditto
Jamaica	30	8 10 0	J. P. Eyton.
Maesyssafn	75	10 11 0	Walker, Parker, & Co.
ditto	6	13 13 6	ditto
Millwr	15	10 15 0	ditto
ditto	15	10 15 0	Newton, Keates, & Co.
Pantyffrith	22	11 1 0	ditto

Sold on the Mine, on the 23d September.

Roughtengill	11½	£14 17 6	Walker, Parker, & Co.
ditto	16	11 18 6	ditto
Montgomery Mines	10	£10 2 6	Newton, Keates, & Co.
East Wheal Rose	60	13 11 0	ditto
ditto	36	12 11 6	ditto
ditto	19	12 1 6	T. Somers.

BLACK TIN

Bought by the Union Smelting Company, Sept. 17.

Mine.	Tons	c.	qr.	lb.	Price p. Ton.	Amount.
Lamheroce Wheal Maria	1	2	1	15	£42 10 0	£47 11 3
ditto	0	1	1	26	14 0 0	1 0 9

Amount of money ..... £48 12s. 0d.

COPPER ORES.

Sampled Sept. 10, and Sold at the Royal Hotel, Truro, Sept. 25.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Perran St. George	79	£3 13 6	United Mines	1	£23 0 0
ditto	67	3 13 6	Treviskey	89	7 11 6
ditto	66	2 4 0	ditto	87	10 1 0
ditto	62	4 17 6	ditto	75	3 10 6
ditto	59	2 15 6	ditto	74	7 0 0
ditto	53	4 11 0	ditto	61	4 18 0
ditto	52	2 13 6	Par Consols	87	6 7 0
ditto	48	2 10 0	ditto	86	6 9 0
ditto	43	3 15 6	ditto	73	5 11 0
ditto	40	2 8 0	South Caradon	81	7 13 6
ditto	35	2 4 0	ditto	70	8 6 6
ditto	33	6 0 6	ditto	51	6 8 0
ditto	29	2 0 0	ditto	25	3 18 0
ditto	2	5 10 0	South Tolgus	107	4 7 6
Consolidated	99	5 8 0	ditto	50	4 6 0
ditto	98	5 4 0	ditto	36	10 0 0
ditto	75	4 14 0	East Wh. Leisure	63	2 11 6
ditto	65	4 4 0	ditto	50	2 17 6
ditto	50	5 18 0	Treleigh Consols	41	4 12 0
ditto	43	5 14 0	ditto	32	10 1 0
ditto	40	2 5 6	ditto	19	2 4 0
ditto	3	47 0 0	Trethellan	46	3 2 0
United Mines	91	4 12 0	ditto	29	3 4 0
ditto	80	3 12 0	Wheal Ellen	31	6 8 0
ditto	69	7 11 6	ditto	30	4 8 0
ditto	58	4 14 0	ditto	11	4 12 0
ditto	56	8 3 0	Wheal Henry	55	7 8 0
ditto	34	2 6 6	Wheal Clifford	51	6 8 0
ditto	27	4 0 0	Gonamena	48	6 6 6
ditto	26	3 16 0	Great Wh. Leisure	32	2 10 0
ditto	24	3 11 0			

TOTAL PRODUCE.

Perran St. George	668	£2251	2 6	Treleigh Consols	92	£552 0 0
Consolidated	473	2441	16 0	Trethellan	75	235 8 0
United Mines	466	2352	6 6	Wheal Ellen	72	381 0 0
Treviskey	386	2629	16 0	Wheal Henry	55	407 0 0
Par Consols	246	1512	6 0	Wheal Clifford	51	326 8 0
South Caradon	227	1628	6 6	Gonamena	48	303 12 0
South Tolgus	193	1043	2 6	Great Wh. Leisure	32	80 0 0
East Wh. Leisure	113	305	19 6			

Average Standard ..... £101 3 0 | Average Produce 7¾
Average Price per ton £5 2 0
Quantity of Ore ..... 3197 tons | Quantity of Fine Copper, 249 tons 10 cwts.
Amount of Money £16,450 3 6

LAST SALE.—Average Standard ..... £95 18 0.—Average Produce 8¼
Standard of corresponding sale last month, 103*l.* 8s.—Produce, 7¾.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
Mines Royal Company	108	£651 4 0
Vivian and Sons	351	1642 0 6
Freeman and Co.	406	1925 8 6
Grenfell and Sons	597	2970 10 3
Crown Copper Company	30	224 14 6
Sims, Willyams, and Co.	422	1934 18 0
Williams, Foster, and Co.	814	4816 1 3
Schneider and Co.	212	1026 10 0
Mason and Elkington	257	1208 16 6
Total tons	3197	£16,450 3 6

Copper ores for sale on Thursday next, at Whites Hotel, Pool.—Mines and Parcels.—Tincroft 680—Wheal Seton 603—North Pool 600—Wheal Basset 521—Camborne Vean 372—East Pool 291—East Wheal Crofty 287—Condurrow 279—South Wheal Frances 185—Fowey Consols 160—Dolcoath 141—North Roskear 89—Pridsaux Wood 40—Pendarves Consols 33—Gustavus Mines 24—Wheal Elizabeth 20—Carthew Consols 19—Wheal Penhale 12—Wheal Harriet 11.—Total, 4367 tons.

Copper ores for sale on Thursday week, at Andrew's Hotel, Redruth.—Mines and Parcels.—Tywarnhayle 592—Carn Brea Mines 585—Wheal Buller 576—Par Consols 370—Alfred Consols 248—West Wheal Treasury 160—Levant 87—West Wheal Seton 85—West Fowey Consols 60—Botallack 60—Wheal Agar 52—Providence Mines 39—British Arsenic Company 30—St. Aubyn and Grylls 20—Wellington Mines 17—Wheal Prosper 16—East Godolphin 14—Polgooth 10—Wheal Virgin 4.—Total, 3025 tons.

COMPARATIVE AVERAGES OF THE WEEKLY SALES OF COPPER ORES FOR NINE YEARS, TO THE FOURTH SALE FOR SEPTEMBER, 1851.

Years.	Tons.	Produce.	Amount.	Standard.	Cop. Ore.	Price Cake Cop.
1842	3148	7½	£17,331 18 6	£113 2	£75 9	£86-88
1843	3824	7¾	19,709 18 6	106 14	67 9	78-79
1844	3648	7¾	17,705 14 0	105 6	67 4	84
1845	4788	7	26,026 4 6	116 10	77 8	86½-91½
1846	3984	7½	20,629 15 6	105 4	68 15	86½-91½
1847	3926	7¾	19,473 11 0	104 19	67 11	96-101
1848	4506	7¾	20,011 15 0	91 19	56 16	79½-82½
1849	3790	7¾	19,554 5 6	106 10	69 10	84
1850	3491	8	16,818 2 0	101 10	67 5	79½

*** The letter of Mr. Simmons, on the Treburget United Mines, and that of Captain Seymour on Wheal Tonkin, only reaching us by this morning's post, are unavoidably postponed.

NOTICES TO CORRESPONDENTS.

WHEAL COAD—HIGHLAND CONSOLS.—Sir: The above-named two companies respectively appeared in prospectuses within two years, and I became a holder of shares in each enterprise; but when I search the list of shares in your Journal, I find both companies to be either defunct or unworthy of notice. Will any of your correspondents inform me whether either company exists, and where I can obtain the necessary information respecting my, I fear, very unfortunate investment?—VERITAS.

WHEAL HARRIS.—Sir: Can you inform me what has become of this mine? Many months have elapsed since any notice appeared of her in your paper: no meetings—no accounts—nothing, in fact, except that you still quote her at 1*l.* per share.—P.: *Royal Exchange, Sept.* 26.

DEVON BURRA BURRA.—Sir: "An Adventurer" would have known, if he held shares in this mine, all the particulars about which he is seemingly so anxious. It is at present in few hands, and may be considered a private adventure. *Bonâ fide* inquirers may satisfy themselves on all points by referring to W. E. Bell, Esq., 16, St. Dunstan's-hill, at whose offices may be seen, not only the celebraied gate-post, but other large specimens of the grey oxide of copper, and yellow sulphuret—specimens not to be surpassed in the kingdom. Notwithstanding there are tons of the grey oxide discovered, there are some persons who have the hardihood to assert that not one particle has ever been seen, except the gate-post.—ONE OF THE LESSEES: *Sept.* 25.

"Enquirer" (Ambleside).—Professor Ansted is a Master of Arts of Queen's College, Cambridge, a F.R.S., and Professor of Geology at King's College, London; he also acts as a consulting mining engineer.

"N. B." (Deptford).—In answer to our correspondent's query, we should reply, Yes. We think it was a Capt. Carpenter, R.N., who, about three years since, patented a propelling apparatus for steam-vessels, consisting of a duplex rudder, each having its own screw, but not exactly parallel, one working a little in advance of the other. A model of a vessel with two rudders, which shut in flush with the stern, so that one was always safe in case of accident in a storm, was exhibited at Lloyd's about four years since.

"J. W." (Bolton).—The description of the late Mr. Thorneycroft's patent shears, for cutting iron plates, will be found in the *Mining Journal* of July 5, 1845. They are considered in the trade most powerful and efficient machinery, particularly for iron shipbuilding; the scrap comes off nearly straight, and is thus more readily formed into piles for roheating, and again rolled.

WIRE ROPE FOR MINING PURPOSES.—A notice of the first manufacture of this rope by Mr. Andrew Smith appeared in the *Mining Journal* of July 25, 1840, and a paper on the same subject, by M. Albert, in the *Mining Review* for August, in the same year. A notice of the trial, Newall *v.* Wilkins and Weatherly (Mr. Smith's agents), appeared in the *Mining Journal* of 22*d* Feb. last.

"An Admirer" (Calais).—A letter addressed to our office will be forwarded to the author of the paper.

The communications of "W. D. K." are hardly suitable for publication—perhaps he can oblige us with some matters more in detail.

We should recommend an "Emigrant" to make arrangements for a copy of Mr. Evan Hopkins's forthcoming work, "On the Connection of Geology with Terrestrial Magnetism," to be forwarded to his destination: it will treat length ly and authoritatively on many subjects which will be of great interest to him. Procure also Mr. Mitchell's "Manual of Practical Assaying."

"Homos" (Gloucester).—The oldest recorded eruption of Etna is that mentioned by Pindar and Æschylus, as having taken place in the reign of Hiero, in the second year of the 75th Olympiad. Hesiod was probably aware of devastating eruptions of Etna having occured previous to the Greek settlements.

"P." had better apply to some broker: we never interfere in thesale or purchase of shares.

"R. H. B." (Penzance).—We think Hawker *v.* Bourne is a case the nearest of any to meet our correspondent's question. It was an action of debt incurred for work and material's supplied to a mine, and affects the authority with which an agent is invested. The court decided that any restriction, which by agreement amongst the partners is attempted to be imposed on the authority which one possesses as general agent for the other, is operative only between these partners themselves, and does not limit the authority as to third persons, unless they know that such restriction has been made.

"C. B. D." must try again: the difference being ½ in the produce, the drop is nearer 20*s.* than 2*s.*—8½ produce brought 99*l.* 1*s.* the preceding week.

"C." (Chacewater).—We recommend our correspondent to carefully peruse the communication of "Jurisconsultus," in our last Number, it exactly meets his query. Although the point is very ingeniously argued, we fear, should a case be brought before a court of law, it would be shown that, as at the time of passing the Joint-stock Company's Act the Cost-book System was unknown to the law, except under the Stannary Laws in Cornwall, there would be no necessity for that data before Parliament to demonstrate the non-existence of the system out of Cornwall (a system which never existed), and that every attempt to introduce it *after* the passing of the Act would be construed into an evasion and infringement of the law.

"R. B." (Redruth).—We have answered the question before. The laws relative to water passing out of one mine into another underground have no respect, or are at all similar, to those regulating the right to streams of water at surface. We think a consultation with a good mining lawyer would be the wisest and safest course to pursue

Edward Herries (Glasgow).—A useful method of ascertaining specific gravities for commercial purposes consists in using a series of glass beads, previously adjusted and numbered. When thrown into any liquid, the heavier ones sink and the lighter float on the surface; but the one which has the same density as the liquid will remain indifferent, or, perhaps, slightly below the surface. The specific gravity is then found by the number with which it is marked.

"Argus" (of Truro) has had the letters transmitted, and all that reach our office are regularly forwarded to him.

"A Railway Slave" (Manchester).—"He who plays at bowls must expect rubbers;" if our correspondent wishes to keep his appointment, he must stick to his duties, which we can perceive he has found out in railway practice are no sinecure. All the officers of a railway must work in their several vocations, and few persons are aware of the onerous and heavy duties which fall on some even of the superior officers. A goods' manager, for instance, in addition to heavy duties at home, has to travel night and day often, without regular food or sleep; and we have known Mr. B. Poole, of the London and North-Western Company, travel in this way on indispensable business upwards of 1300 miles in one week.

"A. B." (Highgate).—Low water-mark on the Middlesex shore, in the Thames Tunnel, which thus completed 920 feet, was reached on Thursday, the 29th August, 1839. The whole length is 1300 feet.

"E. L." (Leeds).—The first pyrometer constructed by Wedgewood was composed of pieces of nicely guaged clay, which contracted by the higher degrees of heat. The scale began at visible redness, and the extreme heat of a good air furnace, of the ordinary construction, is 160 of his scale, or a little more.

"X." (Cheltenham).—Immense quantities of gas sometimes suddenly issue from the Newcastle coal seams without exploding—some of the most extraordinary of which are on record. We can mention two:—At the Walker Colliery, 960 feet deep, on the 13th Nov., 1846, when approaching a "fault," a blower was met with—a mass of coal, 8 ft. by 4 by 6 feet, and weighing 11 tons, was dislodged from its place, and an immense discharge of carburetted hydrogen took place, which fouled 41,681 feet of the airways—the lamps were extinguished, and no explosion occurred. On the 10th of the following December, although the dyke was cautiously approached by bore holes, an immense blower was met with, but the ventilation being good, no accident occurred.

"An Enquirer" (Cromford).—The coinage duty on tin has been abolished since 1838. The term was derived from the French word "coin" (a coiner), that part of the block being cut.

"Cautious" is advised to keep so: in fact, we are, as he states, "not a week without two or three new concerns starting suddenly up, and supplicating us to place them on our list: from 1000 to 4000 shares each—£1 paid (nominally), half that to go to the concoctors, who, not satisfied, bolster the price up to 8*l.*, 9*l.*, and 10*l.* each." Parties should be "Cautious" before touching any such.

The letter of "Germanicus," on the "Devon and Cornwall Copper Smelting Company," and copper smelting in general, together with our remarks thereon, is postponed until next week.

"J. F." (Islington).—Malachite is green carbonate of copper; it consists of deutoxide of copper, 71·7; carbonic acid, 20·5, and water, 7·8; its name is derived from the Greek—the translation of which is "marsh-mallow," both being green.

The Theory of Mineral Veins,

BY EVAN HOPKINS, ESQ., C.E., F.G.S.

We have pleasure in announcing, that the chapter on this important subject, as newly-written for the second edition of Mr. Hopkins's work on "Terrestial Magnetism," will appear, as a series of papers, in the MINING JOURNAL, with the necessary illustrations.

The Cost-Book System.

Having repeated applications for particulars respecting the Cost-book System, we have reprinted, as a pamphlet, the paper descriptive of its principles and practice, which appeared in the *Mining Journal*. Copies can be procured through any bookseller or newsman, or at our office, price 6*d.*

*** We must impress upon our correspondents, the necessity of invariably furnishing us with their names and addresses—not that their communications should, consequently, be noticed, but as an earnest to us of their good faith.

*** It is particularly requested that all communications may be addressed—

TO THE EDITOR,
Mining Journal Office,
26, FLEET-STREET, LONDON.

And Post-office orders made payable to Wm. Salmon Mansell, esquire, for the proprietors

THE MINING JOURNAL
Railway and Commercial Gazette.

LONDON, SEPTEMBER 27, 1851.

The MINING JOURNAL is published at about Eleven o'clock on Saturday morning, at the office, 26, Fleet-street, and can be obtained, before Twelve, of all newsagents, at the Royal Exchange, and other parts of London.

Ever having endeavoured to the fullest extent of our humble ability to promote the best interests of the working collier and miner, and to secure to them as British subjects, and as members of the human family, those rights, privileges, and sympathies to which they are inherently entitled, the last report of Mr. SEYMOUR TREMENHEERE—a summary of which we published on 16th and 23d August last—gave us the greatest satisfaction. It is clearly the most important of the results of all his previous investigations, as showing that not only were the most urgent endeavours being made to place this portion of the community in a better position, but that the colliery population themselves were becoming alive to their hitherto degraded state, and the low position they held in the scale of civilisation. The greatest evil, however—the most crying reproach which remained in full force—was that of sacrificing the best interests of their children by taking them from school, and sending them to work at the earliest possible age, in order to profit by the small sums they could earn. Taken from school at the tender age of from 8 to 10 years, it was but a natural result that they should very early forget all they had been taught, if teaching it could be called—such as putting down a few figures and writing little more than their own names. Still of more importance is it that they are deprived of the salutary discipline of mind and character—the moral training which would be derived from an additional year at school; then reaching an age when it would be more fully impressed on their minds. To meet this evil, and, if possible, to counteract it, Mr. TREMENHEERE proposed that two money prizes, of 3*l.* and 4*l.* per annum, should be given to the two most successful boys in each school, which, being about half what lads of from 10 to 12 years of age can earn, the competition would be a great inducement to parents to keep their children a year or so longer there. No sooner was this suggestion canvassed than 23 firms in the iron and coal-trade (whose names we inserted in the MINING JOURNAL of 16th August) nobly came forward, and subscribed an income of 155*l.* per annum for the purpose, which, we have no doubt has been, or will be, followed up by many others concerned.

We now come to the result of this philanthropic movement—the establishment, as stated in our last Journal, of annual prizes in all the national schools, the competitors not to be under 11 years of age, and a preference always to be given to boys still older, provided they are really the most forward; this will be a still greater inducement to parents to keep their boys at school. Nor is the standard of attainment by any means a difficult one to obtain,—reading fluently from the first-class reading book, writing correctly, from dictation, from the same; the first four rules of arithmetic, simple and compound; general conduct, and progress in religious knowledge being also ascertained to be satisfactory. This examination is for the minimum prize: the examination for the first will extend to the higher rules of arithmetic, mensuration, and a short essay on a subject connected with the trade or geography of the district. Any school not furnishing candidates, the inspector of schools, Rev. J. P. NORRIS, may transfer the amount to others affording more than its proportion of candidates. Such is the gratifying progress of the measures taken for the amelioration of the collier's position—the real education of their children—which will be the means, probably, by the next generation, of producing a different race of beings; reflective and cautious, making themselves acquainted with the laws and operations of Nature; and thus, instead of recklessly rushing to destruction, every man will lend his aid to prevent, by guarding against, those explosions which is their curse at present. A list of the schools is being prepared, the managers of which will be communicated with as to the time and place of examination. When this takes place we shall return to the subject.

We have carefully read the report of the OLD ELECTRIC TELEGRAPH COMPANY, and also that of the BRITISH ELECTRIC TELEGRAPH COMPANY. It will be in the recollection of our readers, that scarcely six months has elapsed since an application was made to the Lords of the Privy Council by the Old Telegraph Company for the extension of their first patent. The grounds on which this application was made were, that the company had reaped little or no reward for their enterprise—that no adequate return on the capital invested had as yet resulted; and, moreover, that unless the patent were renewed for fourteen years, the company would be all but ruined. The British Electic Telegraph Company opposed the extension, and that, too, on the very opposite grounds—viz.: that very large profits indeed *had been made*, and *were still making*, by the old company. They had, however, little or no direct proof of the amount of these profits, because the old company had never published any regular yearly accounts, and it was only from the cross-examination of their own witnesses that any collateral proof of that assertion could be had. Nevertheless, the Privy Council were so satisfied that the view taken by the British Company was correct, that the extension of the patent was refused, and it expired accordingly in June last.

The old company have at length followed the wise course pursued in the first instance by the British Company, and have printed and circulated their annual report. Let us now see how matters stand.

The result shows that, exclusive of the enormous sum of 168,826*l.* paid for patents alone, the capital outlay of the company has only been 242,285*l.*, and the cost of the company's telegraphs only 166,320*l.* It also appears that the receipts for the last half-year were 25,529*l.*, and the working expenses 14,762*l.* leaving a clear balance of 10,767*l.* applicable to dividends. A dividend, at the rate of 8 per cent. per annum, on a capital of 411,111*l.*, was, therefore, declared at the meeting.

But as it appears from the report that the cost of the telegraphs and works (exclusive of patents) scarcely exceeded 200,000*l.*, it is evident that the profits for the half-year (had a reasonable sum only been paid for the patents) were such as to have enabled the company to have declared a dividend at the rate of nearly 20 per cent. per annum.

But this is not all. It appears also, from the same report, that there is a reserve fund in hand of no less than 69,457*l.*, which, it is stated, is applicable "to no particular purpose." Now, if this had been distributed also over the whole capital, it would have formed a bonus of 17*l.* per cent. on a capital of 411,111*l.*, or on the capital expended in the construction of telegraphs it would have formed the large bonus of nearly 40*l.* per cent. To reconcile this state of things with the statements put forth to the Privy Council is difficult indeed. Here we have a company, in February, praying for a grant on the ground of poverty, and for fear of being ruined if the grant is not made; and in August of the very SAME year, we find them declaring a dividend of 8*l.* per cent. per annum, and capable of distributing also, at the same time, a bonus of 17*l.* per cent. over their whole capital, and that, too, on a capital including no less than 168,000*l.* as payments for patents.

No wonder, then, that this company is so desirous of retaining its monopoly, and that the British Company is so eager to share in the chance of obtaining so rare a dividend and dividing so large a bonus.

With respect to the BRITISH ELECTRIC TELEGRAPH COMPANY. From their report, it appears that the old company have not, as yet, ceased their opposition, but are using every means in their power to prevent the British Company from obtaining an extended field for their operations. In the case of the London and North Western Railway, it appears that offers to that company to the value of more than 25,000*l.* have been made by the old company to exclude the British Company from their territory. This appears to have delayed for a time the company's operations on that line. The British Company have, however, succeeded in obtaining several important lines. The report itself says:—

> Your directors adhere to the determination expressed in their last report, and have declined to enter into any unseemly competition, either by proposing to erect telegraphs at prices wholly unremunerative, or by extravagant offers to railway companies for securing the exclusive possession of their lines of railways. They regret that a similar course has not been pursued, nor the contrary practice repudiated, by individuals whose experience ought to have made them acquainted with the necessary consequences of an opposite policy. It has come to the knowledge of your directors, in the course of their application to the various leading railway companies for the use of their lines, that a system of treaties, having for their object the *exclusion* of the British Electric Telegraph Company from those railways, has been almost uniformly pursued, and agreements in accordance therewith, in some cases, have been signed; while, in other instances, negociations actually commenced have been suspended, delayed, or put an end to, by the influence of railway directors having deep pecuniary interest in the existing telegraphic monopoly. Such operations have at present prevented your directors establishing communication with the great centres of telegraphic business in Lancashire and Yorkshire. Exclusive agreements entered into by the Manchester, Sheffield, and Lincolnshire, and the Eastern Counties Railway Companies, have temporarily impeded your directors from securing a route from London to the north over the lines of the Great Northern Railway. Your directors have, however, the satisfaction of informing you that they have made arrangements for the use of the lines of the Lancashire and Yorkshire Railway Company, by which access will be afforded to all the principal towns throughout the manufacturing districts, and that negociations are in progress with several other companies, with whom your directors have every reason to expect that satisfactory arrangements will be made. Your directors are confident that the days of *exclusive* telegraphic communication in this country are numbered; the bare suggestion that negociations were pending, which would have the effect of surrendering a monopoly of the district traversed by the lines of the London and North Western Railway Company into the hands of the old telegraph company, aroused the fears of the whole mercantile community of the country; and memorials, signed by nearly 1000 of the principal commercial firms in Liverpool, Manchester, Leeds, Huddersfield, Newcastle, Edinburgh, and Glasgow, were addressed to the Board of directors of the London and North-Western Railway Company against the exclusive possession of that railway being given to any telegraph company.

We perfectly agree with the British Company that the days of *exclusive* telegraphic communication are numbered. Parliament has already decided the question as to whether there should be any exclusive telegraphic communication in the kingdom or not; for in the case of the British Company, during the passage of their bill through Parliament, we well remember how the old company endeavoured to thrust in clauses—first, to the effect that the British Electric Telegraph Company should not erect wires on any line where the old company had wires. Then, on the rejection of this clause, another was proposed—viz.: to keep the two companies' wires 30 ft. apart. And lastly, on the rejection of this clause, another was proposed—viz.: to keep the two companies' wires 6 inches apart. All these clauses were refused one after the other by the committee on the bill, and a fair field was, it was thought, opened to the British Company.

The old company, failing in their opposition before Parliament, appear, however, to have immediately turned their attention to another mode of crippling the British Company, and that is by *exclusive* agreements subsequently made with various railway companies.

Let not the public imagine that a monopoly of telegraphic intelligence is a matter in which they have no concern. The daily increasing mercantile transactions of this country, and the difficulty which capitalists experience in using their money to the best advantage, render it absolutely necessary that the mercantile community should not be left to the tender mercies of one Telegraph Company, without any check in the shape of competition; as it is evident that one company would have it in their power to make use of intelligence which ought to be fully accessible to the public, in such a way as to advance the interest of individual speculators, to the ruin of thousands of *bonâ fide* dealers.

We feel certain, therefore, that the matter has only to be brought before Parliament, and all these lines will at once be opened to the British and other Telegraph Companies.

We are glad to see that the British Company are preparing to bring the question before the Legislature in the ensuing session of Parliament, and then with the lines they have already secured, and with a direct access to the metropolis, we do not fear that the British Company will prove as highly remunerative as the old company has already done; and they will, moreover, deserve the thanks and support of the whole community for their persevering and untiring efforts to break down the present monopoly, and to supply the public with cheap telegraphic intelligence.

It might be supposed, from the recent accounts of gold discoveries in Australia, that there was something extraordinary in the occurrence, and that gold would shortly be so abundant, and easily obtained, as to become a drug in the market. We have no doubt but that Australia, like the Brazils, and other gold-producing countries, contains its gold deposits, and many will be enriched thereby; but we must caution capitalists and industrious miners not to be led away by the extravagant accounts now in circulation. Those who have been engaged in foreign mining, which Englishmen have been carrying on during the last 30 years, know what the generality of gold mines and gold washings are; and although some local proprietors of washings and gold quartz mining have been enriched by them, yet they have proved ruinous to a very large majority of speculators. We have from time to time published many articles on this subject, showing that gold rocks are so common, that they are found in all parts of the world, with the exception of the west of Europe, and, consequently, their detritus in the hollows and ravines form rich deposits of the precious metal; but the spots where gold is found *sufficiently abundant for any length of time* to be remunerative to companies, have been so scarce, that it would be difficult to name even six profitable concerns. New districts, like California, and perhaps Australia, may continue productive to a certain number of hard-working men, like our tin streamers; but we would recommend those who go gold seeking to proceed and select their ground with caution, and take a lesson from the experience of the past, and be well advised by those who have been long engaged in the business. In looking at the quantity of gold obtained, the amount of labour incurred to produce it should always be borne in mind; and were this duly considered and reflected upon, the impression as to the danger of its depreciation would soon be removed.

After a prolonged repose from disputation on the COST-BOOK PRINCIPLE, we have been recalled to the subject by two communications, in our last and present Numbers, that will assuredly arouse the attention of our readers as well as our own. We must admit, that our correspondent brings a considerable force to bear against our prior conclusion, as expressed at the termination of the recent pamphlet, which has been so extensively circulated;—sufficient, indeed, to induce us to express some hesitation before we can reassert the correctness of our view. That the Registrar of Joint-Stock Companies, by declaring the exclusion from the operation of the Registration Act of cost-book co-partnerships other than those within the Duchy, did in effect extend that principle beyond its actual and legitimate region, and that, in so doing, he did, according to our apprehension, establish an incomprehensible paradox, we frankly avow to be the extent of our incredulity. A new version, however, is given by "Jurisconsultus" to the tenour of that officer's adjudication; and in confessing that there is considerable truth in the fact of the existence of hybrid associations in other soil than that indigenous to the system, we leave to our readers the appreciation of the correctness of the two interpretations.

It would be wholly inconsistent with our principles of free thought and discussion to assume the garb of infallibility, upon this or any other point of information affecting the interests we represent. All we can say for ourselves, in respect to errors of judgment is, that in expressing convictions which may naturally be regarded by many as decisive, we are solicitous of acquiring the completest evidence from fact, regarding it in the most impartial light; and we endeavour to place paramount, truth and justice, in every instance, where we venture to propound peculiar opinions. We may be wrong in having raised a doubt as to the propriety of the judgment of the functionary in question, who did, indeed, dispose of the case by a summary and universal application of the Cost-book Principle to localities which were never dreamt of as entitled to its machinery. Nevertheless, as it is unnecessary for us to assert, in so disputing his official, and as we find in practice, virtually *judicial* authority, we applied long experience, unwearied assiduity, and devotion to the welfare of mining, as the tests. We have given to this officer the attribute of judicial influence, and, we may parenthetically add, irresponsible, as the statute erroneously, as we dare to think, leaves us without any tribunal of appeal, save at the irrecoverable cost, and by the dilatory and precarious instrumentality, of the common law remedy of a mandamus.

We regarded the Stannaries as the primitive, natural, and exclusive extent of the legal fruition of this special privilege. As well might we have thought of finding the Warden's Court transplanted to the Orkneys or California, as to suppose that the Cost-book Principle could be consistently engrafted on an application of the system under the civil law or American jurisprudence. The cost-book had been ever so secluded in that retired western sanctuary of British mining, that it was held sacred even in the excitement of bye-gone speculation. Perhaps, indeed, it might have fared better with the commercial community, if it had been otherwise under proper legislative regulations, substituting an equivalent for the Steward's Court. The local administration of justice in Cornwall was specially moulded to the dispositions of the system, of which the details appeared mutually peculiar to the jurisdiction. Here, again, we are met by the bold denial of our correspondent, who points to the circumstance, which we freely admit is significant in support of his argument, that the WARDEN'S jurisdiction embraced only tin mining adventures till 1836, and even then did not extend to *quarries*. However disagreeable it may be to have our preconceived notions unsettled, this is a ground of debate which requires most deliberate examination; and before we venture further with the controversy, we trust we shall derive additional information as to the facts of the case, from the experience of some of our valued contributors.

The subject is one of increased moment in the present condition of metallurgic prospects. If our correspondent be right, there is no limit to the adoption of the principle by companies formed here, no matter where the mines may be situate—Caithness, California, Bathurst, the Mountains of the Moon, or even the Moon herself, will furnish wide fields of exploration, and something new to our intelligence. But at the same time, we must not disparage serious actualities, if such be the true interpretation of the law. The cost-book is a simple and effective constitution, which, fairly supported, may be conducive of great advantage. Should evil accrue from irrational abuse of its privileges, we must look to the Legisla-

ture for correctives; and in that case we shall not fail to stimulate our *Solons* to devise appropriate measures, which will establish adequate control.

In order to bring the propositions in precise form on both sides prominently before our readers, we here reprint our original remarks on the subject:—

"The 7 and 8 Vic., cap. 110, clause 63, has been referred to and printed in almost every prospectus which has come under our notice, to assure the shareholders that mines worked on the Cost-book System are exempted from the operation of the Joint-stock Companies' Registration Act, forgetting at the moment that while mines worked on the Cost-book System are exempted, no mention is made in the Act itself, nor in the prospectus citing it, as to the laws or conditions which constitute the Cost-book System. We contend that it does not apply to mines worked out of the jurisdiction of the Stannaries' Courts, and is not recognised by our courts of law; hence, it is idle to hold out a lure to those who are not acquainted with its principles or its constitution. There can be no question that the Cost-book System, properly observed, is one of the most simple and perfect of the kind, and is the best security that can be afforded to the mine adventurer, *for* to a certain extent, as a *société anonyme* (inasmuch that the adventurers may be personally unknown to each other, although their names are regularly entered on the cost-book), this security is afforded them."

The information contained in our advices from Copiapo (which will be found among the foreign mine reports, in another column) will be received with satisfaction by our readers, more particularly those having capital invested in mine adventure on the other side of the Atlantic. In the Copiapo report will be found the interesting intelligence, that in consequence of representations which have long been made by the mining interest of the discouraging and injurious tendency of the export duties on bar silver and copper ore, amounting to 6 per cent. of the whole value, which on the latter is about 7s. 6d. per ton, the Government has decreed that the export duties on these, and other mineral produce, shall be gradually reduced in such manner, that in about four years no export duty whatever will be levied; and also the greater proportion of the import duties on mining materials will be repealed, or they will be merely nominal. There is much importance to be attached to this concession, which is highly creditable to the Chilian Government, as showing an appreciation of, and a disposition to follow, those measures of free trade and independent commerce which, first adopted in England, have shown to the world that all imposts and exactions only tend to fetter the interchange of commodities between nations, whether of the raw material or the manufactured article; and that experience through a long series of years has demonstrated that as any tax has been reduced, so has the business done in the material taxed extended in a greatly increased ratio.

The mineral wealth of Chili, and Copiapo in particular, is probably equal to that of any other portion of the globe, and this concession directly tends to encourage a most vigorous prosecution of mining enterprise, particularly silver, the exports of which precious metal promise this year to be considerably in excess of 1850, the return for the first quarter alone having amounted to 420,000*l.*, and the shipments of copper for the same period have exceeded those of former years. Imposts of all descriptions, however small in amount, are oppressive and interruptive of necessary operations, of which we have had many most striking examples in our own country, and this remission will give a great stimulus to the inhabitants of the city, remarkable alike for their liberality and wealth; and they already appear determined to devote all their capabilities to the development of the great mineral resources of the province. We have no greater proof of this than the railroad now constructing from the city to the sea, of which a distance of 24 miles, about half, is now complete, and though probably not constructed with the finish or substantiality of an English line, it will be found efficient and useful, greatly facilitate and reduce the cost of the carriage of ores and metal to the shipping port, and prove a proud monument to the community, the funds necessary having been raised among themselves. The people appear to have a thorough reliance on their own exertions, and it will not be out of place here to state that the roads generally are good; the city has a well-conducted hospital, a theatre not surpassed in elegance by many in Europe, a cathedral, cemetry, and there is now being erected a building for a college for mining instruction, public promenades, a commodious market, and other public works, which will place them, in proportion to their extent, on a par with the best regulated cities in the old world; and what is still more highly honourable in this certainly progressive community, is the fact that by the present authorities justice is equally meted out to rich and poor, native and foreigner. The duty on the gold first exported by the Imperial Brazilian Association from Rio Janeiro was 25 per cent., but was gradually reduced to 10; and it will be remembered that at the half-yearly meeting held on the 14th Nov. last, the report of the directors stated that their petition to the Legislature for a further reduction to 5 per cent. had been granted, and these movements in the right direction must be highly cheering to every mind not imbued with the dark grovellings of bigotry, or wedded to the apathetic crawlings of past ages. They are, we think, convincing proofs that the time is fast arriving when the ports of the world will be free to each other, and that the population of every state and clime, "from Indus to the pole," be bound in one bond of universal brotherhood and peace, as much from interest as inclination. An interesting article on "Mining in Copiapo" will be found in another column.

We quite concur in the general opinion that the measure proposed by Government for establishing a settled postal communication with the Australias, is a stinted and insufficient proposal. The notion that a general post-bag, made up once in *two months*, is at all level with the necessities of the case, is, in our opinion, under the circumstances, simply preposterous. It cannot satisfy the wishes of the colonies, nor in any sense meet the length and breadth of the interests of Great Britain in the convenience and prosperity of those communities in the South Pacific, of whom she seeks to buy and sell. It must, as we think, also egregiously fail in either creating or maintaining that cordial and frequent communication between them and us, which the unity of a great and widely-dispersed empire so imperatively requires. If the colonists themselves were allowed to manage and transmit their correspondence by ocean packets of their own, or by those for which they had contracted, we can pretty nearly answer for it, they would have provided for that fullness and frequency of intercommunication of which the measure of Government is a faint and meagre epitome. The proposal, as it stands, has issued from the portfolios of the Admiralty; and we can give the Colonial Office credit, if the duty had been entrusted to that department, for devising a measure more consonant with the expectations and the wants of those most intimately concerned in the establishment of a well-regulated postal communication between themselves and the tens of thousands connected with them by ties both of kindred and of commerce in these islands. We hope and believe that the proposition of Government will undergo considerable alteration and revision before its final adoption; for, as we have said before, we cannot suppose that even the Admiralty will, upon consideration, conclude that a mail once in two months will satisfy either Great Britain or the colonies, for whose joint benefit the measure is designed.

On reference to a communication in another column, it will be seen that prizes are offered by Mr. J. H. Murchison to the miners at Wheal Crebor, for the best practical report on the state and prospects of the mine, with the reasons on which their deductions are founded. The idea is an exceedingly good one, and affords an example which we should be happy to see extensively followed, as tending to lead the minds of the men to contemplation, and investigate more the scientific and geological points of their employment than resting their faith solely on the pick and gad, or "where it is, there it is."

We are pleased to notice that the *Manual of Practical Assaying*, written by our esteemed correspondent, Mr. John Mitchell, has been translated into Spanish by Don Constantine Saez Montoya, for the use of the Mining School of the Peninsula. The work is dedicated to His Excellency Don Luis Lopez Ballesteros. In a country abounding in mineral wealth as Spain, the want of such a valuable assistant has long been felt, all works on metallurgy in Spanish being anterior to the 17th century; and those published in Germany being too abstruse and scientific for the practical man, the attainment of the necessary knowledge has been rendered excessively difficult to the native; this is now remedied, and the diffusion of Mr. Mitchell's work will, no doubt, give a considerable impetus to mining life in the peninsula.

MINING IN COPIAPO.

Copiapo is named after "Copayapu," its original name; it has a small river, and copper is found even near the sea-side. The little town was overthrown by an earthquake in 1818, fortunately without any loss of human life, the inhabitants having timely notice of its approach. Many slabs of copper which had been covered with sand by the advance of the sea were then found and dug out. The mines and washings for gold extend over most parts of Chili below the Andes, but the principal spots are near Copiapo, Guasco, Coquimbo, Ligua, Petorca, Tiltil, Caen, and Talca. Silver is chiefly obtained in high parts of the Andes, and particularly above Copiapo and Guasco. The principal copper works are on the upper road from Aconcagua to Coquimbo; in the *cerro verde*, near the latter town, in the gold mounts near Guasco, or its valley, and in that of Copiapo. The copper veins near to Coquimbo are not so rich as those near Guasco and Copiapo, but run larger; on the road to Ylapel they may be seen trending in various directions over the naked hills, whose formation appears to be principally of argillaceous slate, projecting out of the ground like dykes, of a greenish brown tint. The line of upper veins run chiefly in a north-west direction, often down a hill across the valley, and up the next hill in a straight line, and visible to the eye. Much has been said about the quantity of gold produced from California; Chili stands in a similar position as regards silver. We extract a few observations from the *Copiapino*, referring to the statistical affairs of Copiapo, which may be acceptable to such of our readers as are connected with that rising province. In the mining district of Tres Puntas there were at the beginning of 1850 74 mines at work, employing 584 individuals, producing 554 cargas (mule loads of 12 arrobas). In December only 53 of them at work, but employing 629 persons, and yielding 985 cargas of ores. Chanarcillo, the most important district, had 73 mines at work, employing 1094 men, and the January produce was 5598 quintals of ore. In December following 115 mines, with 1587 working men, yielded 9539 quintals—such was the progress in about 11 months. The only falling off arose in San Antonia, which yielded 737 quintals at the commencement of the year, and only 408 at its termination. In that province there are 400 silver mines, 42 produce copper, 10 gold, cobalt, and quicksilver, and five are coal mines. The exports were 387,019 marcs of bar silver, 6 of gold, 5299 quintals of silver ores, 35,225 quintals of bar copper, and 25,818 of copper ores; these are the shipments, without reference to various quantities in transit.

Nature has done as much for Chili as for any other country; she embraces within her limits every variety of climate and soil requisite for every known product of the earth, while of the hidden treasures within its recesses, though already proved to be of great value, the probable extent remains incalculable. The wealth and power of a nation consists in its commerce: the country is at present but thinly populated; therefore by encouraging immigration in the south, affording every facility for the extraction of her mineral wealth, and the continuance of a liberal policy on the part of her rulers, Chili must eventually attain to a distinguished position among her sister nations.

GOLD FROM AUSTRALIA.—The *Thomas Arbuthnot* has arrived, with about 4000*l.* worth of Australian gold, some of it being in large lumps. As a proof of the intense excitement that pervaded all classes at Sydney, it may be mentioned that a large portion of the crew swam away from the vessel in Sydney Harbour to try their fortunes at the diggings, after all due precautions had been taken to prevent any surreptitious use being made of the boats.

A meeting of the leading merchants connected with the Australian colonies took place on Tuesday at the George and Vulture Tavern, St. Michael's-alley, Cornhill, in relation to the aspect of affairs consequent upon the gold discoveries. The chairman (Mr. Flower) referred to the state of uncertainty in which all who are interested in the trade with Australia have been placed by the recent news, and pointed out the necessity for ascertaining what steps the Government intend to take, especially with regard to supporting the colonial authorities in maintaining proper regulations. A discussion followed, and it was finally resolved that a deputation should be formed to wait upon the Colonial Minister, with the view of obtaining a conference upon the subject.

CALIFORNIA.—From San Francisco, the reports are more favourable than at any period during the present year, and the shipments of gold for August and September will doubtless far exceed those of any previous month. The most remarkable features of our mining operations are the very numerous undertakings, by companies, all along the veins and tributaries, to divert the water from their channels, the extensive canals on the tributaries of Calaveras, Tuolumne, American, and Yuba, to carry water upon placers known to be rich, but without water; and, lastly, the fair prospects of a practical and successful beginning of quartz mining with heavy, improved machinery, of which there is increased confidence in the ultimate success, and the belief is every day becoming more general that this will become the great and permanent source of gold. The age of "prospecting" is past; combined capital and labour, directed by systematic and scientific principles, will succeed, where a blind trust in fortune and in individual efforts has failed. The Texas Company, who have been faithfully at work about 100 yards from the rich claim of the Louisiana Company, have at last struck the gold bearing quartz, and found it rich beyond their most sanguine expectations. This is but one claim of the many that are daily proving rich, and before many months Sonora will astonish the world by its quartz mines, even more than it has done by its placers. The Tennessee Company have struck a vein of 12 in. thick. A vein of decomposed quartz has been discovered, so soft as to crumble with the hands. Its extent is visible some 50 yards, and will yield 10 cents. to the pound. Rastra, or track mills (a simple construction for amalgamating), are now being made, each of which will pulverise and amalgamate 4500 lbs. of the quartz per day, giving to the parties interested a very bountiful yield. Gold mines are now worked in Carson's Valley, on the eastern declivities of the Sierra Nevada. The subject of agriculture is also beginning to attract considerable interest.

Extract from a letter, written by a gentleman in California to a friend, dated San Francisco, Aug. 1:—"As the attention of the public is much directed at present to the quartz mines of California, and as I have visited all those lying in Mariposa county, I feel confident, from my own observation, that that attention is not misdirected. I have been on Burn's ranche, and all the places in its vicinity, and am convinced that there are localities on and near that ranche from which immense supplies of gold can be obtained. I have no doubt that in an area of eight acres in one locality, on that ranche, there is now more gold than the Bank of England ever had on deposit at any one time. For the next 20 years the mines in that section will yield an amount that will astonish the world—in fact, the most sceptical and unbelieving in regard to the yield of gold from California would be forced to change their opinion, could they see the mines that I have visited. For my part, all that I should desire would be sufficient means to set good machinery in motion at any one of those mines, as I am confident the result would be an immense fortune."

The export of gold in July was $3,471,245, declared value, to which adding $400,000 taken by private hands (a larger amount than usually so taken, as a good many old miners went home and took their money on their persons), will give the total of gold shipped, $3,871,245.

MORE GOLD DISCOVERIES.—The *Constitutionnel*, in an article relating to the gold diggings of California and Australia, incidentally states that gold has been found by some Piedmontese engineers in the valley of Aosta, and that one-half of Piedmont has actually ran mad at the news. It is true that gold has been found in several parts of Piedmont, but not sufficient to repay the cost of searching for it; as for the discovery of a very rich mine of that metal, we can find no trace of it in the Italian papers.

THE GOLD MINES OF BRAZIL THIRTY YEARS AGO.—These mines were at one period very productive. The largest fifth on the gold was in 1753—viz.: 169,080 oitavas—in 1807 only 11,893 ditto. Near the arraial of Agoaguente (warm water) is situated a large and deep lake of brackish, tepid, and fetid water, two miles from the confluence of the Rio das Almas with the Maranham. The gold there was so abundant as to draw an assemblage of 12,000 persons to the neighbourhood. Among other pieces of considerable size one was found of 43 lbs. weight, which was transmitted to the Court in the same form that Nature presented it. This rarity was placed in the Royal Museum at Lisbon and became the booty of the French army when in that city. It is believed at Minas Geraes that the main treasures of the earth are still untouched, and that only what is scattered upon the surface had been gathered. About the end of the last century a discovery was made at a place, which from the colour of the metal, has been called *ovo podre* (rotten gold); the vein was very rich and the people so eager to profit by it, that when the Guardamor endeavoured to interpose his authority, and regulate the extraction according to the laws, he was set at defiance. A party of contraband miners collected three arrobas in the course of one night. The people had long solicited that the country about the Rio Claro and Rio dol Piloens, which had been reserved because of its diamonds, should be laid open, for this forbidden district of 40 leagues extent was supposed to abound with gold, which petition was granted in 1801. At Brazil the most profound ignorance, and extreme filthiness of the habits of the people creates a revolting picture. The ceremonies of the Roman Catholic religion in the meanwhile are duly celebrated; superstition blending with the grossest voluptuousness. The monks are ignorant; and a debauched crew, at once sluggards and libertines, swarm in every street, such then is Brazil, the land of wonders, whose rivers roll over beds of gold, where the rocks glow with topazes, and the sand sparkles with diamonds; where nature assumes her richest dress beneath the blaze of a tropical sun, and birds of the gaudiest plumage vie with the splendid efflorescence of the forests they inhabit.

MINING ENTERPRISE—ITS PROGRESS AND PROSPECTS.

Owing to a pressure of matter in last week's *Mining Journal*, we were obliged to reduce our notice of Bodmin Wheal Mary: it is due to the present party to state that the concern only came into their possession about 12 months ago, and that they have since then erected a 50-inch cylinder steam-engine, of the best construction, for the express purpose of getting down the shafts as quickly as possible; fully satisfied (as we are ourselves) that with so many lodes following each other on the underlie, towards the shaft, the speediest and cheapest way of intersecting them is by this mode; they can then be explored by short cross-cuts, and tribute ground opened with the greatest expedition. Consequently, the shallow levels have been lately suspended, and all the force applied downwards. A new lease has been obtained; and the adventure is divided into 1024 shares, 8*l.* paid. Three other lodes, beyond the number before alluded to, have been traced at surface—one of them to the south—showing exceedingly favourable symptoms. Altogether it is a sett of great promise for copper ore; and, when we consider the number and size of the lodes, their proximity together, and the beautiful stratification in which they lie, we are justified in stating that few better mining speculations can be found at the present price.

We now arrive at those copper mines that have during the last quarter sold at the ticketings only 155*l.* worth and under—among which is Copper Bottom, situated in the parishes of Crowan and Gwinear. This concern first commenced working in 1835—to the end of which it sold only 20 tons, at 5*l.* 4s.=104*l.*; the following year, 348 tons, at 7*l.* 11s.=2642*l.* 8s. 6d. Such was the mad infatuation of the public at the time, that the 15*l.* shares were run up to 185*l.* in Sept., 1836; 200*l.* in Dec.; 280*l.* in Feb., 1837. Down they went in April to 150*l.*; in June to 100*l.*; July, par (41*l.* per share), several calls being made in the interim. A fresh start took place in Nov. following, when they were "cooked up" again to 130*l.*; and in Jan., 1838, down again to 100*l.*; April, 60*l.*; Nov., 40*l.* (under par); and in Dec., 25*l.* Such was the nature of this fluctuating bubble, which, like the South Sea one, ruined many. In 1839, with a powerful steam-engine to draw the water down to a 43 fm. level, the total amount of its sales were only 135 tons, at 5*l.* 15s. 6d.=780*l.* 9s. 6d., all which ore was raised from a caunter lode; and it then remained unwrought from 1840 until September, 1845, when a party were induced to embark in it, "under the auspices of a managing committee of seven gentleman at Exeter," in 1000 shares, of 1*l.* each deposit. They were immediately at 500 per cent. premium, probably induced by the imaginary worth of a mine adjoining on the west, called East Relistian, then at a considerable premium, but which proved worthless: 1142*l.* 12s. 9d. was expended at and above the adit level, when Capt. J. Richards, of Great Consols, was required to submit an estimate of the further capital required to put up a 66-inch cylinder steam-engine, with the necessary pitwork, &c., together with the cost of six months' working. His estimate, being only 5850*l.*, was approved of—another 1*l.* call being made to explore the adit while the engine was getting ready, and 2*l.* when purchased; all this time, shares bearing an unwarrantable premium. To the end of 1847, the copper ore sold was 8 tons, at 3*l.*=24*l.* The next three years produced but 32*l.* 12s. 6d.; and from June, 1850, to June, 1851, only 584*l.* 14s., and about 12*l.* worth of tin. On 7th Aug. they sold 31 tons of copper ore, at 4*l.* 0s. 6d. per ton=124*l.* 15s. 6d. This statement is not made with any invidious motives towards the mine itself, but to point out the ridiculous folly of such premiums generally; for, during the 16 years that it has been at work, the total sales do not amount to what was actually paid at one time for 20 shares in it. Similar instances could be adduced to a number beyond all conception. Parties are found eagerly disposed during periods of excitement and speculation, which are of periodical occurrence in this country, to enter into every concern that has "Wheal" attached to it. Mining is cried up as the shortest, safest, and surest road to wealth. Public folly embraces the delusion, and turns a deaf ear to the voice of truth, and becomes equally blind to the repeated cautions plainly exhibited by us from week to week. It is of little avail for us to proclaim it is "dangerous," while the public mind is thus heedlessly carried away by excitement, and blinded by its own delusive follies. We have digressed from the business of this particular concern beyond what we had intended; our meaning is, to show the fatal folly of rushing into the flood of such unexplored and visionary concerns at prices that bring only ruin and disappointment on the purchasers; and Copper Bottom in 1836 is only one lesson or example of it; there remain thousands besides. With respect to that mine alone, its locality and equipments, not a word can be said against it; but it is still in an infant state, compared with those around, —the utmost depth being only 60 fms. upon the south lode, and the explorings at that level but trifling; the principal workings being at the 50, 40, 20, and 10 fm. levels; on the north lode it is only 30 fms. deep. There has been but very little done in the western ground, where, it is confidently expected, those who persevere will be one day amply rewarded for their outlay. The pitwork is being removed from the north engine-shaft to May's, where the flat-rods will be worked in future, and the western ground be fairly tried; the ore improves both in quality and quantity. The costs are about 300*l.* per month; and most sanguine expectations are now entertained that they are on the right road to attain a prosperous result. We repeat they are not down a sufficient depth as yet, and advise them to sink the shafts by all manner of means.

Wheal Unity Consols (tin and copper, Gwinear) sold for the last quarter 72 tons of copper ore, at 2*l.* 0s. 6d. = 145*l.* 8s.; and on the 4th September 89 tons, 4*l.* 1s. 6d. = 363*l.* 1s. If any tin, it was by private contract. The shares are 6000, upon which 2*l.* each have been paid up. Gray's shaft is sinking, and nearly down 70 fms. under adit. The lode in the 60 east seems more favourable for tin than copper, being last valued at 20*l.* per fm.; westward it is estimated to be worth 25*l.* per fm. for copper and tin. They expect to produce about 3 tons of tin per month. The mine seems opening well, and from its local situation, with perseverance, time may bring it into the happy condition of remunerating its shareholders for the money expended.

South Wheal Speed (copper and tin, Uny Lelant) sold 72 tons of copper ore for the quarter, at 2*l.* per ton = 143*l.* 11s.; if any tin, by private contract. The shares are in 300, of 15*l.* each. They are well held—in fact, considered an investment; and, therefore, we scarcely ever hear of one of them being upon the market, or see a report from the mine, which we should most readily give insertion to were they sent us.

North Wheal Buller (Great South Tolgus), copper, Redruth, in 1200 shares, of 6*l.* each, has been at work four years, with an engine about two. The sale hitherto has been only 40 tons, at 3*l.* 6s. = 132*l.* They are down 70 fms. below adit, and, as noticed in our last Journal, two of the directors inspected the mine a few days since, and report "important improvements in the lower levels"—the agent's report of which appears in our columns this day. This mine, in the adit level, and up from thence to surface, sold many thousand tons of copper ore, at from 11*l.* to 12*l.* per ton—rich gossany stuff. The lode came into spar and jack, when the exploring the levels deeper was discontinued. The present party are going to see what the result is 10 fms. under.

West Wheal Towan (tin and copper, Illogan) during the quarter sold 32 tons of copper ore, at 4*l.* per ton=128*l.* 6s.; and if any tin, by private contract. This mine is on the Great Wheal Towan lode, having several others parallel thereto, and is in 500 shares, of 21*l.* each, now working spiritedly by a highly-respectable set of adventurers, who are determined, by the means of ample funds, steam-power, and perseverance, to explore the regions below to an extent hitherto unattempted in the eastern part of Illogan. The large profit made in four or five years at Great Towan is of itself sufficient inducement; and we are glad to find that, as they open the mine in depth, and by cross-cuts, the prospects are exceedingly favourable. We, therefore, augur well of this property.

Trelyon Consols (St. Ives) tin is sold to the various smelting companies privately; consequently we have no records to refer to as to the amount, except that 432*l.* 14s. 10d. was the sum to March account. Of copper ore, during the quarter, they disposed of 21 tons, at 5*l.* 17s. 6d. per ton = 123*l.* 7s. 6d.; and on the 7th August 20 tons, at 8*l.* 5s. 6d. = 165*l.* 10s. At Wheal Venture, the 32 west is yielding well for tin; and at Margery the adit is driving to meet the junction of killas and granite; several tin pitches are working in the back. The shares are divided in 600, of 4*l.* 15s. each, which are principally held by parties residing in the west of Cornwall.

We expect in our next to be enabled to finish our remarks upon the copper mines that have sold above 10*l.* worth of that metal during the last quarter; and it is with regret we again feel it our duty to call attention thereto, that out of 304 mines on our second list of shares, published weekly, there are only 33 that sell copper at the public ticketings; and although we know there are a few more that dispose of their produce by private contract, and there are the tin and lead mines yet to be accounted for, still the disparity is so enormously great between the mines producing ore and

those producing none, that the eyes of the speculating public cannot be too widely opened to this glaring fact. We shall proceed afterwards to the tin and lead mines selling their produce publicly; and any of those who do so by private contract, and wish us to notice them as we make progress, have only to favour us with the necessary particulars to ensure the insertion of their communications, it being our desire to embody all the information possible, for the perusal of those interested, as well as our numerous readers. [*To be continued.*]

Original Correspondence.

GOLD FIELD IN CANADA.

SIR,—The late discovery of gold in New South Wales, in connection with the previous extensive workings in California, has rendered its known existence, be it in what quantity it may, or in any part of the world, of the utmost interest. In the *Mining Journal* of the 22d Feb. last, you inserted a notice of the position and extent of the Canadian gold field so far as explored, and I now find that the *Sacramento Placer Times*, in some remarks appended to the article, which it quotes from your Journal, denies the existence of gold in Canada—that its existence is contradicted by the geological strata of the country, and throws a slur on the writer of the article, by stating that it is a mere attempt to divert the current of population fast setting into California As knowing something of the country, I can bear out the fact that, in the district of the Chaudiere River, and its tributories over a distance of at least 30 miles by perhaps 10, gold has been found to a very considerable extent, and no less than five different companies are now formed, and at work, for washing the sands of these waters, and at present with every prospect of success. The first company formed commenced by earning 5*l.* a day, and all are now doing well. The metal exists in precisely the same condition as in the alluvials of Chili, Brazil, California, and other gold producing countries, as well as, *in situ*, in rocks, whether auriferous quartz, jacotinga or micaceous schist, ferruginous clay-slate, or others. It is found in grains up to lumps of 1 lb. each, and the geological knowledge of the country does not, therefore, contradict its existence. Five hundred Americans, and hundreds from Lower Canada and New Brunswick, are "inspecting" this field; and although, from a want of gold-washing experience and mineralogical knowledge, a vast deal of disappointment has been felt, even as it was, and still is, in California, many have done, and are doing, well, sufficient to warrant much more extensive operations. It is a fact that, however disappointed, there is hardly a deserter from the labour who has returned home, but who takes good specimens of the precious metal with him. The gold of California has converted a desert and a savage wilderness into a civilised State, and who can tell what the "Chaudiere" district may not do for Canada.

Crutchedfriars, Sept. 24. AN AMERICAN MERCHANT.

P.S.—While I am on this subject, I may just observe that from all appearances which have been noticed by mining engineers, there is still more gold in some of the mineral districts of Chili, than in all California. Plains of great extent, watered by the affluents of the Paragua, and covered by an alluvial soil from 40 to 50 ft. in thickness, are the depositories of immense quantities, which have been accumulating undisturbed for perhaps hundreds of centuries, and you cannot bore in any part without getting ounces of gold; yet from the unsettled state of the country, the natives being next to useless as labourers, and being continually taken for conscripts, with the difficulties of transporting other labourers and machinery, the water is prevented from being kept down, and consequently these valuable sources remain in *statu quo* for future generations. Many of the beds of rivers and streams would also, by a proper system of working, yield valuable and immense returns of the precious metals.

CORE-ANNEALED STEEL.

SIR,—I noticed a paragraph in your Journal respecting what is there termed "core-annealed steel." I have seen the pretension set up before, and by the same parties; but as it was put forth as a "puff direct," it scarcely deserved notice. In your columns the pretended discovery assumes another shape, the more so as the paragraph alluded to appears in a semi-official form.

First, as to the name, it is simply a misnomer. There is no such thing, there can be no such thing, as "core-annealed steel." To be annealed at all, the steel must undergo a heating process. In other words, the quantity of carbon which the metal contains must be reduced by the action of fire. Until, therefore, you can heat, and by heating anneal, the interior of a bar of steel, and keep the surface cool, the term "core-annealed" is a misnomer, and the pretension to the discovery of such a mode of treatment as ridiculous as it is impudent—"a mere peg to hang a puff upon."

The kind of steel to which you refer has been made in or near Sheffield for the last 40 years. The first makers, I believe, were some parties at Grenoside, near Sheffield. They had a great reputation among the calico printers, or their engravers, in Manchester, for many years. Subsequently, the trade became divided, and this "core-annealed steel" is an affair of every-day manufacture in most of the large steel-works in Sheffield. The mode of making the article in question is something like the following:—Very soft blister steel, and in some cases iron, is taken and melted in a crucible and poured into a mould, larger or smaller, according to the required dimensions of the finished article—say, you want "calico printers'" or "core-annealed steel," in bars 2 inches diameter. You will take very soft material, melt it, and pour it into moulds of four or five inches square. These ingots are taken and drawn under the hammer to a diameter of some three inches. The bars thus drawn are placed in a converting furnace, subjected to the same kind of treatment as bar-iron intended for blister-steel, and thus an outer rim of close hard steel is given to the surface, while the centre remains in the same soft state as when put into the converting furnace.

This description of steel (as your scientific readers will be aware) is safer to work and to harden than thoroughly hard steel, and where only surface hardness is required, as in a tap or a calico printers' tool, it answers all the ends required.

I should not have trespassed upon your patience, and that of your readers, but for the hollowness of the claim set up, and the growing propensity in trades that should be kept respectable to follow the example of the Solomons, the Holloways, and the Old Parrs of the world of physic. You have heard of "silver-steel," as though silver could fail to injure steel; of "welding steel," as though welding steel was a new discovery; but this "core-annealed steel" is the most paradoxical of all.—B.: *Sept.* 23.

CALLOW'S BLASTING POWDER.

SIR,—For reasons which at a future period I shall not fail to remark upon, I beg to state that I am not surprised at a letter which appeared in your valuable and impartial Journal, of the 20th inst., from "A. M."

I have a vast dislike to notice anonymous writers who evince an uncalled for spirit of enmity; inasmuch as I consider all persons assuming the mask and poignard metaphorically, as the ideal types of the unworthy proxies of jealousy and revenge, materially represented by the assassin. I cannot thank your correspondent for giving such a *resumé*, as he gives, of the correspondence regarding my powder; for it is anything but full or fair. The circumstances have been so recently before your readers, that I do not suppose it was at all necessary, except for some sinister or frivolous purpose, such as the misrepresentation and garbling of facts, or the satisfaction of the *rabies scribendi*. The judgment upon the motives I leave to others, but you will allow me, no doubt, to protest here against a positive mis-statement, so contrary to the reality that I cannot pass it in silence. Your correspondent, amongst other things, says, "Like Mr. Callow, the author describes an accident which occurred to him;" having previously given the fact of the accident without associating with it the qualification contained in your notice respecting it. This is a form of relation which may, indeed, be the effect of very unwarrantable looseness in such criticism, but as I expect, it is more probably one of the common tricks of literary legerdemain, with a very improper design to place to the account of my mining powder (the only subject of discussion), as if, upon my own evidence, an accident which if truly so ascribed would naturally prejudice my invention. But in truth, Sir, I never gave any such description, and the accident arose from experimentalising on a material by no means that which we are examining, and, therefore, should not be brought into consideration in any shape.

Again, Sir, I deny that it has been admitted generally by me that the combinations, Nos. 1 and 3, "have turned out, for all practical or commercial purposes, useless and ineffective." That they are not applicable for the same purposes as No. 2 I freely confess, but hereafter I shall demonstrate their uses and applicability.

It is unnecessary for me to replace the question in its original light by correcting other *illusions*, as we may in forbearance term them. Those who have taken an interest in it will not be so easily misled as to accept "A. M.'s" evidently interested statement as a substitute for their own recollections; and I am sure all who are even slightly versed in patent law will agree with me in the opinion, that unless "A. M." will honestly stand forward in his own name, and in his own sphere of knowledge, whatever that may be, he will make very little impression against the observations of Mr. Campbell in favour of my powder, without this recommendation that his scientific acquirements be more manifest than his experience in patent law. I do not at all feel disposed to accept his advice, by "standing by my cartridge, mode of manufacture, or my machinery," and thereby enable him hereafter to write on the "decline and fall" as well as the "rise and progress," as he calls it, of my invention. It is not consistent with my disposition to impute unworthy motives, but it is the surest evidence, according to my experience of business, that a "canny Scot" kens the way to mak' a bargain, and wants to buy, when he begins by depreciating the wares he covets. If "A. M." would avow his character and connections by giving his name, no such unworthiness could be attributable by insinuation; otherwise I must only add that signature to the as yet short list of assailants, instigated by a vexatious spirit to attack me, because I have succeeded in applying to practical use ingredients over which the power of science had hitherto failed to obtain sufficient mastery. For my part, I feel perfectly confident of rendering my patent powder serviceable in lessening the expenses and obstacles of mining operations under the present system; and having done that, I shall rest satisfied that there is little to regard in the challenge (which I cannot avoid terming grotesque and ridiculous) of my patent right by "A. M.," or any other person, whatever may be their ulterior objects.

As your correspondent chooses to treat with disrespect the valuable and clearly scientific experience of the gentlemen whose views he proposes to animadvert upon, I prefer leaving the judgment as to the weight of opinion to the decision of your constituents. Perhaps some of your adepts in patent law would favour us with an estimate of "A. M.'s" understanding on that subject, so as to afford a test of his capacity in other matters in which, perhaps, by a national and inevitable predestination, he may be disposed to *meddle*.

To Mr. Copeland's communication a totally different reply is due. However we may differ, he is entitled to respect for his straightforward and honourable avowal of hostile opinions; and I beg to assure you that I am actuated by no less zeal than he to avoid the frightful results to which he refers. I anticipate that the evil he specially alludes to will be removed by my powder, because, owing to its instantaneous combustion, it has a more *radiating* effect than that of gunpowder, which acts more positively in the direction of the *line of least resistance*. Again, the vastly greater amount of oxygen evolved in the explosion of my powder, precludes the effect which he notices with regard to gunpowder, arising as it does from incomplete explosion for want of an adequate supply of that gas so essential for perfect combustion.—EDWARD CALLOW: *Sept.* 24.

TELLURIC ELECTRO-MAGNET.

SIR,—The employment of the voltaic battery being a very inconvenient method of producing electro-magnets, in their application to the numerous purposes for which they are now, or proposed to be, employed, I have been much occupied in endeavouring to devise some means by which the electric currents of the earth may be rendered available for the purpose, and have found that an electro-magnet may be produced by induction from the earth's electro-magnetism, amongst other ways, by using MM. Linari and Palmieri's "magneto-electro-telluric" battery.

If a thick copper wire, covered with silk, be wound round a piece of wood, or hollow iron tube (a portion of a gun-barrel, for instance), it will give the elementary form of this battery. This helix is to be placed longitudinally in the magnetic meridian. On connecting the two ends of the wire with the galvanometer, and making the helix rotate from south to north, or north to south, in the plane of the magnetic meridian, the galvanometer will indicate that an electric current is produced. By connecting the wire of the helix with that of a common horse-shoe electro-magnet, in the place of the galvanic apparatus, it will as completely electro-magnetise the horse-shoe electro-magnet as if a voltaic arrangement had been employed for the purpose, when the helix is rotated in the manner described. The power of this battery may be increased to an indefinite extent, by fixing a number of helices in a revolving frame, and increasing the number of horse-shoe electro-magnets; and by giving a sufficient length to the connecting wires, the electro-magnets may be placed in any position that would enable the greatest advantage to be taken of their power.

Whether this telluric or earth electro-magnet may be generally applicable for telegraphic or motive purposes remains yet to be seen. I have not leisure at present to prosecute investigations as to its utility in this respect, but it is probable that it may prove the path by which the terrestrial magnetism that guides a ship in its course, may be made available to enable it to plough its way through the waves. JOHN J. LAKE.

Ordnance-office, Portsmouth, Sept. 24.

ELECTRO-MAGNETISM AS A MOTIVE-POWER.

SIR,—Having observed in the *Mining Journal* of the 13th inst. an article on electro-magnetism as a motive-power, in which it appears a Mr. Beatty, of Dublin, presumes that he has solved the great problem, and wishes to form a company to carry out his views, under the title of the "British Electric-Power Company," being anxious for further information, I fortunately succeeded in getting a sight of one of Mr. Beatty's circulars, dated from 29, Capel-street, Dublin. This circular, Sir, being, in my mind, anything but explanatory, and leaving the public as much in the dark as ever as to the discoveries of the promoter of this company, or in what points he differs in his mode of applying electro-magnetism as a power from Jacobi, Davison, Hjorth, Page, and others, is the cause of my requesting space for a few observations, which may lead to some public enlightenment on this most interesting subject.

With patents fully granted and confirmed, with models of machinery matured, working well, and proving almost to demonstration the utility of a certain project, scores of attempts to form companies have failed, and the unfortunate inventors have been left to neglect and ruin; and I think it is hardly to be conceived that, with only the vague remarks contained in Mr. Beatty's circular, in which I cannot understand whether he has even yet secured his patents or not, he will be able to obtain a single capitalist (cautious as they have now become) to aid him in his scheme.

This circular sets out by stating, that by the introduction of certain principles, which have not hitherto been adopted, the inventor has succeeded in removing the obstacles which have in former attempts prevented the effective application of this power: then, instead of informing us the nature of those obstactes, and giving some idea of the means intended to be used for their removal, we are treated to a glowing account of its advantages under seven heads, occupying upwards of 50 lines of the document, which may be expressed in three sentences—smallness of space required, and great safety; the only question being power with economy. Its advantages are understood by every mechanic, can it once be made as powerful and as easy of control as steam; and this must be shown before the public will put faith in any such discoveries as are here merely stated, without the slightest proof of their having been made.

Mr. Beatty is quite correct in stating that the expense of *executing works of this kind* cannot be estimated *à priori*; and he, therefore, proposes that somebody should take 5000 shares, at 5*l.* each, making a capital of 25,000*l.*; no call to exceed 1*l.* per share; power to borrow to the extent of one-third of the capital; land to be taken not to exceed 50 acres; and the company not to take *any assignment of patents (?)* until 10,000*l.* are subscribed for. The promoter expects, by granting licences to other bodies in the United Kingdom, America, the colonies, and continental states, "a large return for the company's capital will be realised." Now, considering the very lucid manner in which we are informed of the power, economy, and facility of application of Mr. Beatty's machines, this is certainly a most modest proposal for raising a few thousand pounds, when such a company, if there was anything tangible to act upon, and the success of the power established, certainly could not be carried out to any extent under a capital of 200,000*l.* I shall, Sir, be most happy to see an explanation; but to me the proposal is at present, to say the least, suspicious. Q.

Stratford, Sept. 25.

BALLOON RAILWAYS—NEW PROJECT.

SIR,—Your Journal was the first paper that advocated my balloon railway, which, by the newspapers' account, is about being carried out in America. Allow me to promulgate, through your scientific Journal, a new theory with regard to railways—by means of which I propose crossing the British Channel; the boats, or carriages, to have four wheels. This will afford a fine field for speculation; for, however startling the assertion, it is very practicable. I propose a train to start every four hours; to go at the rate of 20 miles an hour. As no river or harbour is required, a great part of the expenses will be covered by the enhanced value of the ground, as towns will arise wherever the termini are fixed upon. I shall again revert to the subject, when I will explain some of the details on which I have founded the project.—J. BROWNE: *Great Portland-street, Sept.* 23.

TREATMENT OF COPPER ORES.—No. VIII.

By JOHN MITCHELL, Esq., F.C.S., author of a *Manual of Practical Assaying*, &c. &c.

OPERATION 2.—*Melting for Coarse Metal.*—The object of this operation is the separation of the copper from the earthy matters, and a portion of oxide of iron abounding in poor calcined ores. In order to accomplish this, a fusion is effected at a very high temperature, by which the contents of the furnace separate into three distinct portions—one a regulus of medium richness (coarse metal), composed essentially of sulphurets of copper and iron, in which the whole of the copper is endeavoured to be concentrated; the second a slag, containing all the earthy matters, oxide of iron, and other fixed substances; thirdly, and lastly, gas composed essentially of sulphurous acid and other volatile matters, formed either by the intensity of the fire or by the mutual reaction of the substances submitted to its action.

This operation presents the greatest number of difficulties, for on its successful termination depends, in a great measure, the economical working of the factory, for the slags being rejected as worthless, any portion of copper they may contain by careless working or otherwise is totally lost, and, as will be seen by the analysis to be brought forward, these slags form by far the greatest weight of all the products; hence a small per centage of copper retained causes a comparatively great loss of that important metal. The cupreous substances used in this operation are the calcined ores of the first class, and the rough ores of the third. There is also added a portion of slags, rich in copper, derived from the operations 4, 5, and 7. This addition of very fusible matters, formed essentially of silicate of iron, induces the fusion of the quartz and oxide of iron, which abound in the ore, and which, without the intervention of this agent, react difficultly on each other. Fluoride of calcium is also added directly to the charge; and, lastly, some earthy matters are spontaneously introduced by the degradation of the sides and floor of the furnace by the action of its fused contents.

The fuel is a mixture of 68 parts of anthracite and 32 parts of ordinary small coal. The management of the fire in the fusion No. 2 differs considerably from that described for the calcination No. 1. The hearth has the same form and nearly the same dimensions; has also for a base a thick mass of clinker, through which air is rapidly introduced in thin streams, and thus carried amongst the carbonaceous fragments, becoming converted into oxide of carbon.

But this combustible gas, uniting with that resulting from the distillation of the anthracite and the coal, does not enter the body of the furnace intact; it mixes in the hearth itself with one or two large currents of air, little, if anything, modified by combustion. These currents are set up under the influence of the chimney draft, through openings pierced in the bed of clinker, like those which serve to convert the anthracite into oxide of carbon, but much larger. These larger openings penetrate completely to the fuel, and allow a very considerable quantity of air to pass though it, without having undergone any material transformation. The combustible gas and air, thus carried to a high temperature apart from each other, mix on their passage from the hearth, and under the influence of the rapid movement and succession of waves caused by the draught, a violent reaction and intense flame ensue. This flame, filling at once the whole interior of the furnace, acts by contact and radiation, both on the substances under operation and the sides of the furnace; a very elevated temperature is thus produced even to the flues. A small hole in the work door allows the workman to judge, by the intensity of light, &c., the state of the fire; if, for instance, the light becomes less intense, the fireman knows that either there is too much or too little fuel in the hearth, or that the two different kinds of gas passing into the furnace are not in the proportion to produce the greatest effect.

The first cause of derangement is only produced by neglect on the part of the workman, and it will be at once seen that too large an accumulation of solid fuel in the hearth would occasion a considerable diminution in the quantity and temperature of the flame; this defect is, of course, remedied by retarding the time of the next charge. The contrary derangement is, however, the most common, resulting from forgetfulness of the workmen in charging at the proper time. This is shown in the body of the furnace by a very short flame, very brilliant, near the bridge, but which scarcely reaches the flues. The charge of fuel in this case must be smaller in quantity, and more often than under ordinary circumstances; if, however, the fuel be added too rapidly, the hearth will be obstructed, the temperature of the furnace lowered, the charge in the body of the furnace solidified, and much loss of time and fuel will ensue to remedy this defect.

If the fuel, however, be charged properly, the inconvenience resulting from an inexact relation between the gases produced and those admitted is also manifested by infallible signs, always accompanied by a diminution of temperature. An excess of air gives a short flame, insufficient to heat the furnace to the flues, whilst an excess of combustible gas is shown by a want of vivacity, which is instantly increased near the work-hole under the influence of the jet of air there admitted. In either case the equilibrium is easily established; in the one the apertures admitting air to the fuel are slightly enlarged; in the other the large apertures admitting air to the combustible gas above the fuel are also enlarged.

The phenomena of temperature in melting furnaces differ considerably from those shown in the calciners, and prove—firstly, that the intense combustion developed has much analogy, if not identity, with that of all ordinary reverberatory furnaces, in which high temperatures are obtained; secondly, in the melting furnace, with an interior volume three times less than that of the calciner, five times as much combustible gas passes in an unit of time as in the latter, from whence it follows that each unit of volume is submitted in one unit of time to the influence of fifteen times as much fuel.

The hearth of a melting furnace consumes during 12 hours, 1·677 tons of solid fuel, which reacts on 1·635 tons of oxygen, or 7·106 tons of atmospheric air. Three charges are worked with the above amount of fuel. The products of fuel and air are as follows:—

Combustible gas produced by distillation	*Tons* 0·356
Carbonic oxide	2·861
Nitrogen	5·471
Clinker	·095
Total	*Tons* 8·783

The quantity of atmospheric air equivalent to the combustible gas contained in the mixture—a quantity which must be admitted through the grate so that the maximum amount of heat shall be attained—is 12,764 tons. These masses of gas, deducting the time the draught is suspended, pass through the furnace in 11¼ hours. The different gases passing each second have the following weighs and volumes:—

	Weight.	Vol. at 0° in cub. ft.
Combustible gas produced by distillation	*Lbs.* ·0198	0·4939
Carbonic oxide	·1584	2·0457
Nitrogen	·3014	3·8090
Atmospheric air	·7040	8·6788
Total	*Lbs.* 1·1836	15·0274

These gases, passing into the furnace at a temperature at least as high as that existing in cupolas for the fusion of cast-iron, it must be admitted that the volume, as calculated above for the ordinary temperature, will be at least sextupled. The mean volume of the gases entering each second into the body of the furnace, is at least 90 cubic feet, or 20 times as much as in the calciners The interior volume of the furnace being about 162 cubic feet, each molecule of the current of flame remains in it about 1·8 seconds; the same molecules have a mean velocity of about 7½ feet per second.

All parts of the smelting furnace are perfectly adapted for the purposes to be fulfilled. In them five or six times the quantity of fuel is consumed in a given time as in the calciners; on the one hand, by enlarging the section of the grate in the proportion of 100 to 175; on the other, by giving the gas admitted into the hearth twice or thrice the velocity as in the calciner, by the aid of a separate chimney, of considerable dimensions, into which the gases are introduced at an extremely elevated temperature. No lateral openings allow the exterior air to enter and cool the interior of the furnace—the only orifice is the one made for the exit of the melted metal, and which is nearly always filled with liquid or solid matters, so that no air can pass. By a contrivance, as simple as it is efficacious, a single door is made at the extremity of the furnace, so as to allow the

workman to use the rable on the whole contents of the furnace. It suffices to open this door to suspend the draught—no air then passes through the hearth, and consequently no fuel is consumed; but the exterior air drawn through the door immediately passes through the flue, which is close to it, so no air can enter the body of the furnace to cool it or its contents. As the reactions occurring in the melting furnace take place spontaneously, and only occasionally require the attention of the workman, and that for a short period, the door need not have that mobility so indispensable in other furnace operations. The fissures between this door and the sides of the furnace are luted with clay during the greater part of the interval between two successive charges; the furnace is thus only cooled by a small stream of air, which enters through a hole about half an inch in diameter, pierced in the door, and through which the progress of the elaboration of a charge can be perceived. [*To be continued.*]

ON THE SULPHITES, NITRANILINE, TOLUIDINE, &c.

[We have been greatly delighted with the perusal of several German and French testimonials relating to the attainments of our early contributor, Dr. Sheridan Muspratt, F.R.S.E., of Liverpool. The dates of the letters are 1841-5, when the now great professor of the Liverpool College of Chemistry must have been a very young man. We translate some of them for our readers, who we are sure will take an interest in them, and shall avail ourelves of an early opportunity of returning to the subject.—ED. *M.J.*]

Berzelius has written—"The investigation of the sulphurous acid and its salts by Muspratt, is one of the most elegant and elaborate we possess, and, moreover, is one which beautifully sets forth the analogy and isomorphism between the sulphites and carbonates—a discovery *overlooked* by all previous investigators."

Dr. Hoffmann, in reviewing Dr. Muspratt's researches, writes—"The first comprised the sulphites; and the results obtained gave us an exact knowledge of these interesting compounds, which Berzelius has incorporated in his *Lehrbuch*."

Dr. Knapp says—"Dr. Muspratt's study of the sulphites has not only led to a knowledge of new, or only of partially known compounds of this class, but to the still more important demonstration of the analogy of the salts of carbonic with those of sulphurous acid. During these investigations, Dr. Muspratt, through profound study of those cases in which chemists have succeeded in producing organic bases artificially, by a transformation of the compounds, and by taking, at the same time, into consideration the constitution of those primitive bodies, was led to form the idea of applying the general law thus obtained to a series of unexplored cases. His discovery of toluidine and nitraniline originated in this method of research, showing in a very elegant manner the correctness of his reasoning, as well as his great skill as an analyst."

Laurent, in writing to Dr. Hoffmann, remarks—"I have received the memoirs of Dr. Muspratt, which you had the kindness to forward me. His investigation upon the constitution of the sulphites has already met with approbation, owing to its completeness. The production of toluidine and nitraniline interested me greatly, as I have for a long period been anxious to find peroxide of nitrogen (nitrous acid), substituting hydrogen in an alkaloid without its basic properties being destroyed; *but I should not have supposed that it could have been accomplished.* The formation of nitraniline will, therefore, prove extremely important, and it reflects great credit upon Dr. Muspratt."

Dr. Charles Ettling, Professor of Chemistry in the Real-Schule, Giessen, writes—"I had the pleasure of becoming acquainted with Dr. Muspratt, of Liverpool, during his lengthened sojourn in Giessen. He has richly gained, by his unremitting industry in the study of chemistry and the collateral sciences, the regard of his fellow-students; and, from his amiable character, the esteem of all who enjoyed the honour of his acquaintance. The distinguished success which has marked Dr. Muspratt's career is best certified by his accurate and elegant investigations on the sulphites; the pretended formation of valerianic acid from indigo; new processes in which aniline is formed; and toluidine, a new organic base, &c."

Dr. Henry Will, the co-professor with Liebig, extols the Doctor's acquirements most highly in the following words:—"I fulfil, with the greatest delight, the wish of my valued friend, Dr. Muspratt, and, therefore, give him a testimonial on account of the eminent position he occupies as a scientific chemist. Dr. Muspratt has become, by his important investigations in organic and inorganic chemistry, *one of the most distinguished chemists of the day*, which is fully proved by his treatises. He has further earned a lasting reputation by successfully introducing Plattner's renowned work on the *Blow-Pipe* to the British public."

And Dr. Hermann Hoffmann, the distinguished Physiological Chemist and Botanist of Germany, also corroborates the previous gratifying opinions:—"I am delighted at having an opportunity of expressing my feelings with regard to the scientific attainments of Dr. Sheridan Muspratt. The Doctor having attended my lectures in physiological and pathological chemistry, I was much gratified by his close application and the accurate judgment he manifested, which, however, I was fully prepared to expect, owing to his profound chemical knowledge, proved by a series of investigations of great interest, that were published in Liebig's *Annalen*. I have not the slightest doubt of Dr. Muspratt continuing in the same course; and as regards physiological chemistry, the most difficult perhaps of all, I should like him to pursue it on account of his very great skill as an analyst."

An item of intelligence of some importance to the tin trade, which is already so largely influenced by the produce of the Dutch mines in the east, is the positive corroboration of the existence of large tin mines in the island of Billiton (as noticed last week). Many months ago we drew attention to a movement made by certain parties in Holland to obtain a lease or right of working the tin mines in this island, and it is shrewdly suspected that the ostentatious explorations of the agents of Prince Henry of the Netherlands and the other parties who have obtained the privilege, are intended more as a blind than for the *bonâ fide* examination of the mineral resources of the island, which have long ago been accurately known in Holland, though the secret was kept as close as possible. As tin was "discovered" immediately on the landing of the party, and as it is understood that every preparation has been made for carrying out the workings on an extensive scale, and under distinguished auspices, the influence of this new source of supply will probably be felt by the trade at an earlier period than is generally expected.

New Orleans is quite losing its high position as a market for lead. The marked change in the course of trade in this article, which has taken place in the past five years, has divested it of nearly all interest with the New Orleans dealers, as, in the almost total absence of foreign demand, the port scarcely does more than retain the distinction of a point of transhipment for the northern cities. The quantity received from the interior, too, has further materially fallen off, being only 325,505 pigs, valued at 217,000*l.*, for the year ending the 31st Aug., 1851, against 415,400 pigs in the same period of the previous year, and 785,000 pigs in 1845-6. This last amount was the largest ever received at the port in one year, and the foreign exports for the same period were 175,000 pigs, the greater part of which went to France. A review of New Orleans commerce, just issued, shows that the total foreign exports have been only 1461 pigs to Genoa and 179 to Yucatan, whilst the entire sales in the market have been scarcely 20,000 pigs. The extreme range of prices has been $4 and $4 62½ cents. per 100 lbs., the highest price being in May and the lowest in June. The total exports since the 1st Sept., 1850, are 320,608 pigs, against 410,146 pigs last year. The imports of iron into New Orleans from the interior for the year have been only 152 tons.

Sir Wm. D. Godfrey has leased the lead mines of Castlemain, county Kerry, to English capitalists.

ASSAY OFFICE AND LABORATORY, 23, HAWLEY-ROAD, KENTISH TOWN—conducted by Mr. MITCHELL, F.C.S., author of "Manual of Practical Assaying," &c.—Mr. MITCHELL begs to inform the Mining and Manufacturing Public, and Bullion and Metal Brokers generally, that he continues to conduct ASSAYS and ANALYSES of MINERALS, METALS, SOILS, and FURNACE and all other MANUFACTURING PRODUCTS.—ADVICE to PATENTEES and MANUFACTURERS on all MATTERS involving a knowledge of Chemistry. 42

INSTRUCTION, as usual, in ASSAYING, ANALYSIS, and METALLURGICAL and MANUFACTURING CHEMISTRY.—23, Hawley-road, Kentish Town.

BLAKE AND PARKIN, MEADOW WORKS, SHEFFIELD, 43

MANUFACTURERS of CIRCULAR and MILL SAWS, Improved CAST-STEEL FILES, for the use of Engineers and Machinists. Patent tempered MACHINE KNIVES and CUTTERS, manufactured for planing and grooving wood, for cutting paper, iron, stone, leather, &c., made to any pattern or dimensions with the utmost exactness. Warranted to work with a harder and finer edge than any other mode of temper.

Inventors of coreannealed cast-steel for taps, piston-rods, &c. Manufacturers of railway springs, blister, shear, and cast-steel, &c. &c.

**** Samples at the Great Exhibition, Class XXII., No. 193.

APPLEDORE SILVER-LEAD MINING COMPANY.—At a MEETING of shareholders, held at the offices of the Company, 51, Threadneedle-street, on Monday last, the 8th inst., 44

RICHARD HALLETT, Jun., Esq., in the chair,

Mr. Fuller read the notice convening the meeting, which was for the purpose of auditing the accounts for June and July, amounting to £339 10s. 6d., which with £9 12s., for office rent, printing, &c., made £349 2s. 6d., against which there was cash in hand last account, £253 0s. 7d.—leaving a deficiency of £96 1s. 11d.: an estimate for August and September cost showing £300 more, when it was

Resolved unanimously,—That the accounts now produced be received and entered in the cost-book—that a regular report be furnished from the mine for publication in the *Mining Journal*; and that a call of 10s. per share be made—payable forthwith into the hands of a banker, to be chosen by the committee, who were re-elected for the ensuing two months.

GREAT POLGOOTH MINING COMPANY.—At the First General Meeting of proprietors, held at the London Tavern, on Wednesday, the 17th inst., F. C. BROWN, Esq., in the chair, 45

the following RESOLUTIONS were agreed to:—

Moved by Mr. John Browne, and seconded by Mr. Heseltine, Sen.,

1. That the report and accounts just read be received and adopted.

Moved by Mr. Johnson, and seconded by Mr. Withers,

2. That the profit of 1100*l.* 9s. 10d., as shown to have accrued over the working costs for the two months and 26 days, to 30th June last, be payable as a dividend of 2s. per share, on and after the 24th inst., being at the rate of about 14 per cent. per annum.

Moved by Mr. Orton, and seconded by Mr. Street,

3. That it is considered preferable, on account of the large number of shares constituting the Company, to pay dividends in future at intervals of not less than six months.

Moved by Mr. G. Thomas, and seconded by Mr. John Browne,

4. That Mr. Samuel Heseltine, jun., be added to the committee.

Moved by Mr. Samuel Heseltine, sen., and seconded by Mr. Mercier,

5. That Mr. Wm. Mariner and Mr. W. F. Street be the auditors of the Company.

WHEAL CATHERINE SILVER-LEAD MINING COMPANY.—At a MEETING of shareholders, held at the offices of the Company, 51, Threadneedle-street, on Tuesday last, the 9th inst., 46

CHARLES JOHN WICKER, Esq., in the chair,

The notice convening the meeting having been read, the accounts were submitted—showing a balance in hand of £401 1s. 11d., after paying off the costs incurred to end of June, when it was

Resolved,—That the accounts now produced be received and entered in the cost-book.

The reports of Capain Henry and Mr. John Taylor were then read, which gave great satisfaction.

WHEAL MAY.—At the GENERAL TWO-MONTHLY MEETING of adventurers, held at the offices of the Company, 104, Bishopsgate-street, on Thursday last, the 25th instant, 47

It was unanimously resolved,—

That from and after this date the 82 (1024) shares in the possession of the Company be considered as cancelled, and that the mine be hereafter divided into 942 parts, or shares, instead of 1024, as previous to the present date.

That a call of 5s. per share be, and is hereby, now made on the 942 shares—payable within 14 days from this date, to the bankers of the Company, the Royal British Bank, Tokenhouse-yard, London.

That the secretary give each shareholder who is now in arrear of calls notice, that unless the amount due from such shareholder be paid within 21 days from this date, the committee have the power to forfeit their respective shares, according to the rules of the Company, and report the result to the next general meeting, for confirming such forfeiture.

That the minutes of the present meeting, together with the accounts and notice of call, be printed, and a copy sent to each adventurer.

Resolutions were also passed, appointing auditors and committee of management, and a vote of thanks given to the chairman. HENRY PEET, Secretary.

GREAT WESTERN AND FOREST OF DEAN COAL COMPANY.—Capital £25,000, in shares of £1 each—paid-up. Provisionally Registered, pursuant to 7 and 8 Vic., c. 110. 48

TEMPORARY OFFICE,—No. 3, BRIDGE-STREET, WESTMINSTER.

Prospectuses may be obtained of, and application for the remaining shares addressed to, the Secretary, at the offices, as above; or to the Solicitors to the Company, Messrs. Coombe and Nicoll; Messrs. Lind and Rickard, stockbrokers, 3, Bank Chambers, Lothbury; and of the following agents:—Bristol: Henry Dayrell, Esq., stockbroker, 6, Clare-street.—Gloucester: G. P. Wilkes, Esq., solicitor.—Liverpool: Messrs. Lowe and Sons, stockbrokers.—Plymouth: J. B. Wilcocks, Esq., Barbican.—Windsor: Henry Darvill, Esq., solicitor. By order of the Directors,

Sept. 25, 1851. HENRY CAPPER, Secretary.

SILVER BROOK AND WEST BEAM UNITED MINES, ON THE COST-BOOK SYSTEM.—In 7600 shares, of £1 each. 49

Applications for prospectuses and shares may be made (until Monday, the 6th October next, when the share list will be closed) to the secretary, Mr. Nicholson, 90, New Bond-street, solicitor; Messrs. Boxall and Co., 7, George-yard, Lombard-street; Mr. George Caunter, solicitor, Ashburton, Devon; or Messrs. H. Caunter and Co., sharebrokers, Ashburton.

CHYPRASE CONSOLS TIN AND COPPER MINE, situated in the parish of ST. ENODER, near TRURO, CORNWALL. 50

In 1024 shares, of £5 5s. each.—Deposit £1 7s. 6d. per share.—Conducted solely on the *COST-BOOK SYSTEM.*

The attention of mining speculators and others are particularly directed to this promising undertaking, which, from the progressive and forward state of the works, holds out every prospect of its soon becoming a good dividend-paying mine; and from its known richness it is well worthy the attention of speculators in mining property.

A few shares only are offered to the public, as more than three parts are already taken up; therefore, immediate application is absolutely necessary, to be made to the Committee of Management, through Mr. Thomas Lewis, No. 17, New Meeting-street, Birmingham, purser; A. Yeates, Esq, solicitor, 77, New Hall-street, Birmingham; or to Messrs. Boxall and Co., 7, George-yard, Lombard-street, City, London.

Prospectuses, reports, and every information, may be obtained upon application to either of the above named parties; the Committee of Management have decided to allot shares to approved applicants until further notice.

The deposits may be paid into the bankers of the Company, the "National Provincial Bank of England," at Birmingham; or through their London and provincial houses.

By order of the committee,

Birmingham, August 8, 1851. THOMAS LEWIS, Purser.

CWMDYLE ROCK AND GREEN LAKE COPPER MINING COMPANY,—CARNARVONSHIRE, NORTH WALES. 51

Capital £30,000, in 10,000 shares of £3 each—conducted on the "Cost-book" principle. Deposit £1 per share, payable upon allotment.

OFFICES OF THE COMPANY,—2, SCOTT'S-YARD, BUSH-LANE, CANNON-STREET.

COMMITTEE OF MANAGEMENT.

Mr. EDWARD ASHTON, Milton-street, Dorset-square
Mr. SYLVESTER WALSH, Polygon, Somers Town
Mr. JAMES ARRAGON, Maida-hill
Mr. H. A. SPARDING, Hanover-square
(With power to add to their number.)

AUDITORS.

Mr. James O'Leary, for the committee; Mr. James Turney, for the shareholders.

BANKERS—Messrs. Rogers, Olding, and Co., Clement's-lane, Lombard-street.

SOLICITOR—Mr. Edward Maniere, 31, Bedford-row.

PURSER AND SECRETARY—Mr. Henry Palmer.

The Cwmdyle Rock and Green Lake Mine is situate on a large estate in the parish of Beddgelert, Carnarvonshire. The grant extends over about five miles in length and three in breadth, and is held under a lease of 21 years, 13 of which are unexpired, under a moderate royalty.

The purchase of the interest of the late adventurers in this valuable mine has been secured upon very favourable terms—viz., that the whole of the purchase-money shall be taken in paid-up shares in this Company, carrying interest of 6 per cent. per annum upon £2 per share—payable annually from their respective dates. The remaining £1 deposit and further call (if any), to carry dividends arising from the workings.

Interest, at the same rate, will be paid to subscribers upon all shares paid up in full by them. The *bonâ fide* holders of scrip in the former undertaking have consented to take in exchange paid-up shares in this Company, in preference to being paid off, and will be entitled to the same rate of interest thereon.

The greater part of the shares are already taken, and the remaining few will be allotted to responsible applicants only.

The subscription will be closed on the 23d inst.

Applications for more detailed prospectuses, plans, and forms of application for shares may be made at the offices of the Company; at the offices of the solicitor, 8 a, Milton-street, Dorset-square; and at Mr. Ringrose's, Sherrard-street, Golden-square.

NORTH TRELAWNY MINE (SILVER-LEAD AND COPPER), PARISH OF LINKINHORNE, COUNTY CORNWALL. 52

In 16,000 parts, or shares, of 10s. each, in scrip to bearer.

This Association is conducted under a Committee of Management, on the principle of the "Cost-book," which exempts proprietors (the undertaking being within the jurisdiction of the Stannary Court) from any liability beyond the amount of their shares, and enables them to withdraw at any time, by giving notice to the purser to that effect.

In addition, scrip (payable to bearer) will be issued for the parts or shares, which will make it optional with the holder to register or not.

This mining sett, from its geological position alone, is one of great value, both for silver-lead and for copper, which is confirmed by the discoveries already made, and give assurance of the best results.

North Trelawny is at Rilla Mill, in the parish of Linkinhorne, and manor of Rillaton; it is bounded, generally, on the north and east by the Callington district; on the west by the well-known Caradons; and on the south by the celebrated Trelawny district.

The Trelawny lode of silver-lead runs through this sett north and south, and the Caradon copper lodes likewise traverse the property east and west. It is superfluous to allude to the well-known extraordinary richness of either the Caradon or the Trelawny mines. The stratum generally is dark blue soft "plum" killas, which is so congenial for the production of rich mineral, and can be worked with much facility and economy.

Prospectuses, with form of application for shares, and every information, may be obtained at the offices, No. 30, Bucklersbury.—By order, JAMES A. MAY, Purser.

TO IRONMASTERS, RAILWAY DIRECTORS, ENGINEERS, and FOUNDERS.—The SUBSCRIBER having been appointed SOLE AGENT in LONDON for the SALE of Mr. MORRIES STIRLING'S PATENT IRON, begs to intimate that he is prepared to SUPPLY Railway Companies, Engineers, and Founders, with the PATENT MALLEABLE and TOUGHENED CAST-IRON, and that all orders addressed to him for these, and also for RAILS, with Hardened Surfaces, shall have his prompt attention. 53

Specimens of the different Irons shown, and every information afforded, on application. Information as to the terms of License under Mr. Stirling's Patents will be given by the Subscriber, and also by Mr. JEE, C.E., 6, John-street, Adelphi. A. MACNAUGHT.

OFFICES,—2, Queen-street-place, Upper Thames-street.

WAREHOUSES,—Paul's Wharf, 25, Upper Thames-street.

GOVERNMENT SCHOOL OF MINES, AND OF SCIENCE APPLIED TO THE ARTS. 54

Museum of Practical Geology.

The COURSE of STUDY at this INSTITUTION will commence on THURSDAY, the 6th of November, 1851, and the following LECTURES and PRACTICAL DEMONSTRATIONS will be given during the session:—

1. CHEMISTRY, applied to Arts and Agriculture ..... LYON PLAYFAIR, Ph. D., F.R.S.
2. NATURAL HISTORY, applied to Geology and the Arts ..... EDWARD FORBES, F.R.S.
3. MECHANICAL SCIENCE, with its applications to Mining ..... ROBT. HUNT, Keeper of Mining Records.
4. METALLURGY, with its special applications ..... JOHN PERCY, M.D., F.R.S.
5. GEOLOGY, and its practical applications ..... A. C. RAMSAY, F.R.S.
6. MINING and MINERALOGY ..... WARINGTON W. SMITH, M.A.

The fee for the course of two years is one payment of £40; or £20 for each session, from November to August inclusive.

Practical Instruction in the Field, in Geology, Mining, and Palæontology, is included in the above charges.

Occasional Students may attend separate Courses of Lectures and Field Instruction on payment of the Fees mentioned in the programme.

The Laboratories for Chemistry and Metallurgy will be open for the reception of Pupils on payment of £15 for the session of five months.

Officers of the Army and Navy, either in the Queen's or the Honourable East India Company's service, are admitted to the Lectures at half the usual charges.

Students who propose to enter with the view of obtaining the Diploma of the Institution, are requested to apply to Mr. Trenham Reeks, at the Museum, from whom the necessary information may be obtained. H. T. DE LA BECHE, Director.

LIVERPOOL COLLEGE OF CHEMISTRY. 55

Professor—Dr. SHERIDAN MUSPRATT, F.R.S.E.

STUDENTS are INSTRUCTED in EVERY BRANCH of the SCIENCE.

Fees for Analysis or Assays may be had on application, with full prospectuses.

On the 1st of October,

PARTS IV. AND V. of the OFFICIAL DESCRIPTIVE AND ILLUSTRATED CATALOGUE, containing the Colonies, Foreign States, and full Index of Names and Subjects, completing the work. 56

SPICER BROTHERS, Wholesale Stationers.
WM. CLOWES & SONS, Printers.

Official Catalogue Office, 29, New Bridge-street, Blackfriars; at Hyde-park; and of all booksellers.

To be published by subscription, on the 1st of December, 1851,

TABLES FOR THE USE OF PERSONS EMPLOYED IN MINES.

1. For ascertaining the Value of Excavations on Tutwork at per fathom, from 1 inch to 12 fathoms, and from 1d. to £22 per fathom—also suitable for calculating stopes.
2. For ascertaining the quantity of water in a given quantity of ore, at from 1 ounce to 94 pounds per barrow of 3 cwts.
3. For ascertaining the standard to be given for any produce from 1½ to 60%, in proportion to a given standard and produce, on the same plan with Phillips's Copper Ore Standard Sheet.
4. For ascertaining the value of a ton of copper ore at any standard, from 3d. to £199 19s. 9d., and for any produce, from 1½ to 30%.
5. For ascertaining the tributer's part of any sum of money, from 6d. to £100 and above, at any tribute, from 1d. to 15s. in the *l.* sterling.

These tables have been used by the author for more than five years; and at the last Exhibition of the Royal Cornwall Polytechnic Society, they obtained a prize of the first bronze medal. Richard Taylor, Esq., in introducing them to notice on that occasion, is reported to have stated that "he might say, as one of the judges (and there were several mine agents among them), that the tables were such as could hardly fail of being very useful, and they were proposed to be published at a price which was very moderate indeed, so that he trusted they would come into general use." See the reports of the proceedings of the Royal Cornwall Polytechnic Society, in the *West Briton*, for Sept. 20 and 27, 1850. 57

Price to subscribers 5s. per copy, and 7s. 6d. to non-subscribers. The price is fixed thus low in order to bring the work within the reach of the working miner.

**** Orders to be addressed to the office of the *Mining Journal*, 26, Fleet-street, London, or to Mr. William Whitburn, Liskeard.

STEAM TO INDIA, CHINA, &c.—Particulars of the regular MONTHLY MAIL STEAM CONVEYANCE, 58

AND OF THE ADDITIONAL LINES OF COMMUNICATION, NOW ESTABLISHED BY THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY

with the EAST, &c. &c. The Company book PASSENGERS, and receive GOODS and PARCELS, as heretofore, for CEYLON, MADRAS, CALCUTTA, PENANG, SINGAPORE, and HONG KONG, by their steamers, starting from SOUTHAMPTON on the 20th of every month, and from SUEZ on or about the 10th of the month.

One of the Company's first-class steamers will also be dispatched from Southampton for Alexandria, as an extra ship, on the 3d of November next, and of alternate months thereafter, in combination with extra steamers, to leave Calcutta on or about the 20th October and 20th December. Passengers may be booked, and goods and parcels forwarded by these extra steamers to or from SOUTHAMPTON, ALEXANDRIA, ADEN, CEYLON, MADRAS, and CALCUTTA.

BOMBAY.—The Company will likewise dispatch from Bombay, about the 1st November next, and of every alternate month thereafter, a first-class steam-ship for ADEN, to meet there the extra ship between Calcutta and Suez; and at Alexandria one of the Company's steam-ships will receive the passengers, parcels, and goods, and convey them to Southampton, calling at Malta and Gibraltar.

But PASSENGERS, PARCELS, and GOODS for BOMBAY and WESTERN INDIA will be CONVEYED THROUGHOUT from SOUTHAMPTON in the Mail steamers, leaving Southampton on the 20th of October, and of alternate months thereafter, and the corresponding vessels from Suez to Aden, at which latter port a steam-ship of the Company will be in waiting to embark and convey them to Bombay.

Passengers for Bombay can also proceed by this Company's steamers of the 29th of the month to Malta, thence to Alexandria, by Her Majesty's steamers, and from Suez by the Honourable East India Company's steamers.

MEDITERRANEAN.—MALTA: On the 20th and 29th of every month.—CONSTANTINOPLE: On the 29th of the month.—ALEXANDRIA: On the 20th of the month.

SPAIN AND PORTUGAL.—Vigo, Oporto, Lisbon, Cadiz, and Gibraltar, on the 7th, 17th, and 27th of the month.

N.B.—Steam-ships of the Company now ply direct between Calcutta, Penang, Singapore, and Hong Kong, and between Hong Kong and Shanghae.

For further information and tariffs of the Company's recently revised and reduced rates of passage-money and freight, and for plans of the vessels, and to secure passages, &c., apply at the company's offices, No. 122, Leadenhall-street, London; and Oriental-place, Southampton.

TO MINE PROPRIETORS, WATER-WORK AND LAND-DRAINAGE COMPANIES, CONTRACTORS, MANUFACTURERS, AND OTHERS. 59

GREAT BRITAIN STEAM-SHIP.

The PROPRIETORS of this SHIP desire TENDERS for the WHOLE (or for any definite section, that would not prejudice the entirety of the remainder) of her STEAM MACHINERY, as originally constructed, consisting of FOUR 88-inch CYLINDERS, of 6-feet stroke, with pistons and rods, air-pumps and condensers, connecting-rods and guides, and all the detail of nozzle and valve gearing, necessary to render each pair of cylinders complete in themselves, from the pistons to the crank-pins.

Apply to Mr. Croome, civil engineer, or Capt. Mathews, on board the vessel, Sandon Graving Dock; or Gibbs, Bright, & Co., Liverpool.

THE PATENT WATER-BALLAST STOWAGE BAGS and PUMPS having BEEN TESTED, and met the approval of practical men, the Public is respectfully informed that all is now prepared for FITTING UP SHIPS, by application to Mr. KIRK, at the Works, GIBSON'S-BUILDINGS, NEWCASTLE-UPON-TYNE, where a pamphlet and illustrations may be obtained by, or forwarded to, parties, and where all inquiries will be fully replied to.—Newcastle-upon-Tyne, Aug. 15, 1851. 60

TO DOCK COMPANIES, WHARFINGERS, COAL, STONE, TIMBER MERCHANTS AND OTHERS.

PATENT STEAM WHIPPING COMPANY.—Messrs. E. & A. PRIOR the Managers of this Company, are now UNLOADING, by means of an ENGINE, their COLLIERS in the THAMES, at an average rate of 20 tons per hour, or upwards of *two hundred* tons per day, and at a considerable reduction in cost.

They have numerous highly satisfactory certificates from captains whose ships they have discharged, and to the owners of which the greatly increased dispatch is obviously a matter of the greatest importance.

The remarkably small dimensions and weight of the engine admits of its being placed on, and removed from, the ship's deck with the greatest facility and dispatch, by means of the barge and derick. These engines are also thoroughly adapted for unloading in the docks, or for permanent use on board all large ships, where, in addition to working out the cargo, they might be most advantageously used for doing all the other heavy work, such as pumping, lifting the anchor, warping &c.

This company are now prepared to contract for the unloading of any quantity of coals, or to grant Licenses for the use of the patent, on application to the managers,

Messrs. E. & A. PRIOR, 153, Upper Thames-street, London. 61

STIRLING'S PATENT YELLOW METALS—Adapted for SHEATHING, BOLT STAVES, BOLT NAILS, DECK NAILS, as reported on by the late Mr. Owen, Supervisor of Metals to the Admiralty; also for PROPELLERS, FRAMEWORK SCREWS, PISTONS, CYLINDERS, COCKS (particularly where there is exposure to corrosion), RAILWAY CARRIAGE AXLE BEARINGS, and for all machinery subject to friction. AGENTS.

Messrs. JOHNSON, 166, Buchanan-street, Glasgow. 62

Applications for licenses and other information to be addressed to the undersigned, ALFRED BARRETT, Bishopsgate Foundry, Skinner-street.

TO THE MINING AND SHIPPING INTERESTS.

WIRE AND HEMP ROPES,—MANUFACTURED under PATENT GRANTED TO JAMES B. WILSON, 63

HAYDOCK ROPE-WORKS, NEAR WARRINGTON.

Applicable to SHIPPING, INCLINED PLANES, MINES, COLLIERIES, &c.; as also to WIRE CABLES for SUBMARINE, OVERLAND, and UNDERLAND TELEGRAPHS.

Sizes, with comparative weights and strength, as also price per cwt. or fathom, may be obtained on application to the patentee.

All sizes of wire strands, railway signal lines, flat and round copper rope, lightning conductors, window sash lines, &c.—Warrington, July 5, 1851.

FOR THE SHOOTING SEASON, 1851.—DEANE, ADAMS, & DEANE, GUN-MAKERS to H.R.H. PRINCE ALBERT, beg respectfully to call the attention of SPORTSMEN to their late IMPROVEMENTS in GUNS, PISTOLS, and RIFLES, which may be seen and tested daily, with a large assortment of their best town-made GUNS, at the MANUFACTORY, No. 30, KING WILLIAM-STREET, LONDON-BRIDGE.—August 7, 1851. 64

**** Sporting ammunition of the best quality on the lowest terms.

ED. J. DENT has REMOVED from 82 to 61, STRAND (being 21 doors nearer to Charing-cross, and directly opposite Bedford-street), and solicits an INSPECTION of his extensive STOCK of CHRONOMETERS, WATCHES, and CLOCKS, as above; also at No. 33, COCKSPUR-STREET, and No. 34, ROYAL EXCHANGE (Clock Tower area). 65

THE MINING SHARE LIST.

Shares.	Mines.	Paid.	Dividends per Share Declared.	Last Paid.	Last Price.	Present Price.
5120	Alfred Consols (copper), Phillack	3	£1 19 to 1st Oct.	£0 6 0 Oct.	14¼	14½ 14¼
1246	Allt-y-Crib (silver-lead), Talybont, Wales	—	0 2 6 to August	0 2 6 ,,	7	
1024	Balleswidden (tin), St. Just	11½	8 15 to Aug.	0 4 to Aug.	10	
4000	Bedford United (copper), Tavistock Devon	2¾	2 16 to Aug.	0 4 to Aug.	7½	7¾ 7½
64	Boscaswell Downs (tin), St. Just	—	750 0 to May, 1849	—	100	
100	Botallack (tin and copper), St. Just	182½	440 0 to 5th April	5 0 to May	200	
1000	Bryntail, Llanidloes, Montgomeryshire	2½	0 5 to end June	0 5 to June	17½	17
1000	Callington (lead and copper), Callington, Devon	29	6 0 to Sept., 1847	—	5	5½
1000	Carn Brea (copper and tin), Illogan	15	202 0 to June, 1851	2 0 to June	95	
128	Comford (copper), Gwennap, Cornwall	70	— —	—	20	20½
256	Condurrow (copper and tin), Camborne, Cornwall	20	11 0 —	—	113	105 110 107½
1024	Devon Great Consols (copper), Tavistock	1	244 10 to Sept.	5 0 to Sept.	290	282½ 285
180	Dolcoath (copper and tin), Camborne	252	855 14 to 1847	—	28	
128	East Pool (tin and copper), Pool, Illogan, Cornwall	24½	233 0 to 1843	—	140	
94	East Wheal Crofty (copper), Illogan, Cornwall	125	242 10 —	—	150	
128	East Wheal Rose (silver-lead), Newlyn	50	2227 10 to 5th Sept.	12 10 to Sept.	450	
494	Fowey Consols (copper), Tywardreath	40	— —		30	
3750	General Mining Company for Ireland (copper)	1¼	35 per cent. to June	10 per ct. ½ year	5½	
100	Goginan (lead), Cardiganshire, Wales	5	440 0 ,,	—	200	
96	Great Consols (copper), Gwennap, Cornwall	1000	353 6 8 to January	—	200	
1000	Great Polgooth (tin), St. Austell	3	0 2 to Sept.	0 2 to Sept.	3	3
119	Great Work (tin), Germoe	100	115 0 to Aug.	5 0 to Aug.	200	
1024	Herodsfoot (lead), near Liskeard, Cornwall	8	0 7 6 to Aug.	0 2 6 to Aug.	5½	5 4½
1000	Holmbush (lead and copper), Callington	24	25 0 to Feb., 1844	Feb., 1844	11½	12
786	Kirkcudbrightshire (lead), Kirkcudbright	9¾	0 5 to Sept.	0 5 in Sept,	5	
1000	Lewis (tin and copper), St. Erth	17	2 0 to 1st Aug.	0 10 to Aug.	17½	17½ 16½
160	Levant (copper and tin), St. Just	2½	1032 0 to 5th Sept.	2 0 to Sept.	150	
100	Lisburne (lead), Cardiganshire, Wales	75	640 0 to 1st Aug.	20 0 to Aug. 1	700	
5000	Low's Patent Copper Smelting Company	9	1 0 6 to July	0 4 6 to July 1	10	
20000	Mining Company of Ireland (copper, lead, and coal)	7	7 10 6 to Feb., 1847	7 p. ct. p. annum	4½	4½
200	North Pool (copper and tin), Pool	22½	217 10 to 1st Sept.	7 10 to Sept.	210	210 213
140	North Roskear (copper), Camborne	10	226 0 to ditto	6 0 to Sept.	180	
6000	North Wheal Basset (copper and tin)	—	1 1 to 5th April	—	10	12
128	Par Consols (copper), St. Blazey	55¾	374 0 —	—	650	
1160	Perran St. George (copper and tin)	21½	1 15 to June	0 10 to 4th June	49	
200	Phœnix (copper and tin), Linkinghorne	30	10 0 0 to March 5	5 0 to March	240	
560	Providence Mines (tin) Uny Lelant	20½	18 4 6 to Aug.	0 15 to Aug.	27½	20
256	South Caradon (copper), St. Cleer	2½	255 0 to July	2 10 to July	122½	120
256	South Tolgus (copper), Redruth, Cornwall	16	27 0 to 5th Aug.	3 0 to Aug.	145	150 145
248	South Wheal Frances (copper), Illogan	80	101 15 to Sept.	6 0 0 to Sept.	200	200
1024	Spearne Consols (tin), St. Just, Cornwall	1¼	3 10 0 to Sept.	0 2 6 to Sept.	9	
94	St. Ives Consols (tin), St. Ive's	80	859 0 to Aug.	4 0 to Aug.	80	
1000	Stray Park and Camborne Vean (copper), Cornwall	15	11 10 —	—	12½	13 12½
9600	Tamar Consols (silver-lead), Beeralston	4	2 11 to July, 1849	—	3½	3½
6000	Tincroft (copper and tin), near Pool	7	5 17 6 to Sept.	—	7½	7½
256	Trehane (silver-lead), Menheniot	1¼	27 15 to Sept.	1 0 to Sept.	15	15 15½
5000	Treleigh Consols (copper), Redruth	6	1 3 to Oct., 1847	0 5 Oct. 1847	3½	3 3½ 3½
96	Tresavean (copper), Gwennap, Cornwall	20	1680 15 to 1848	—	200	
120	Trethellan (copper), Gwennap, Cornwall	5	402 10 to 5th April	—	13	
120	Treviskey and Barrier (copper)	130	246 5 to Oct.	6 10 to Oct.	202½	205 207½
1024	Wellington (copper & tin), Perranuthnoe	6¾	2 2 6 ,,	0 5 to March	4½	3
256	West Caradon (copper), Liskeard, Cornwall	20	162 15 to Sept.	2 10 to Sept.	97½	
512	West Providence (tin), St. Erth	10	— —	—	97½	97½ 96
256	Wheal Basset (copper), Illogan	10½	245 0 to 3d Aug.	10 0 to 3d Aug.	375	375 380 384
256	Wheal Brewer (copper), Gwennap, Cornwall	2	5 0 —	—	7½	7½
256	Wheal Buller (copper), Redruth	5	109 0 to 1st Oct,	12 10 to Oct.	550	530
126	Wheal Friendship (copper) Devon	120	2331 10 to Aug.	6 0 to Aug.	130	
5000	Wheal Golden Consols (silver-lead), Perranzabuloe	3	1 0 to July	0 5 to July	10	10
430	Wheal Lovel (tin), Helston	—	8 0 to 8th Sept.	2 0 to Sept.	32½	30
112	Wheal Margaret (tin), Uny Lelant	79	187 0 to Aug.	5 0 to Aug.	150	
512	Wheal Mary Ann (lead), Menheniot	5½	21 5 to 21st Aug.	3 0 to Aug.	58	56½
40	Wheal Owles, St. Just, Cornwall	200	— —	—	280	
240	Wheal Reeth (tin), Uny Lelant	20½	27 10 to August	2 10 to Aug.	82	85 75 80
198	Wheal Seton (tin and copper), Camborne, Cornwall	107	194 10 to 5th Aug.	4 0 to Aug.	200	200
520	Wheal Trelawny (silver-lead), Liskeard, Cornwall	3½	26 10 ,,	2 0 to May	49	48 46
1024	Wheal Tremayne (tin and cop.), Gwinear, Cornwall	9½	6 0 to Aug.	0 10 to Aug.	26	26½
5000	Wicklow (copper), Wicklow	5	313 per cent. ,,	18 p. ct. end Aug.	25½ ¾	26¾

FOREIGN MINES.

Shares.	Mines.	Paid.	Dividends per Share Declared.	Last Paid.	Last Price.	Present Price.
5000	Alten Mining Company (copper), Norway	14½	3 0 0 to Mar., 1848	—	3	
10000	Brazilian Imperial (gold), Brazil	24½	3 17 6 to Dec., 1844	—	2¾	
12000	Cobre Copper Company (copper), Cuba	40	45 12 0 to June 1851	3l. to June	33	34½ 35
10000	Copiapo Mining Company (copper), Chili	14	3 3 0 to Oct., 1850	8s. to Oct., 1850	6	6
20000	General Mining Association (iron & coal), Nova Scotia	20	6 10 0 to June, 1851	10s. June, 1851	12	
2700	Marmato (gold), Columbia	2½	2 0 0 to June, 1851	1l. to June, 1851	7	
5051	Mexican Company (silver), Mexico	59½	0 8 6 end of 1846	4s. in 1846	—	
7000	Royal Santiago (copper), Cuba	10	33 4 0 to July, 1846	—	2½ 2½	2½ 2¾
11000	St. John del Rey (gold), Brazil	15	12 17 6 to Dec., 1850	1l. 10s. to June 7	19	
3174	United Mexican (silver), Mexico ... Av.	28½	1 12 6 to Feb. 1850	7s. 6d. to Feb., 1850	2½ 2	2

Shares.		Paid.	Last Price.	Present Price
1024	Appledore (silver-lead and cop.) St. Ives	3	2	1 1½
940	Balnoon Consols (tin), Uny Lelant	—	3	
508	Bell and Lanarth (copper), Gwennap	6	3	2
256	Berriow (copper), Liskeard	3	1	1
1500	Bishopstone (silver-lead), Glamorganshire	2½	10	
32	Black Burn, Alston, Cumberland	20	100	
5000	Black Craig (lead), Kirkcudbrightshire	5	3	
8000	Blaenavon (iron), South Wales	50	12	
1024	Bodmin Consols (lead), Wadebridge	6	4	4
5000	Bodmin Moor Consols (tin and copper)	1	3¾	
1024	Bodmin Wheal Mary (copper), Bodmin	8	6	8
6000	Bolenowe	2½	4	4
120	Bolowall and Nanpean (tin), St. Just	20	18	
1024	Boringdon Park (silver-lead), Plympton	1½	5	3½ 4½ 5
240	Boscean (tin), St. Just	15	9	
2400	Bosorn (tin), St. Just	1	2	
1024	Bottle Hill (copper) Plympton	1	1	
10000	British Iron, New, regis. (iron)	12	8	
—	Ditto ditto, scrip	10	10	
2000	Bronfloyd (lead)	1½	1¾	
2400	Bryn-Arian (lead), Cardiganshire	2½	1¾	1½ 1½
812	Butterdon (lead), Menheniott	3½	8	8 7¾
2000	Bwlch Consols (silver-lead), Cardiganshire	4	1½	
1900	Cae-Gynon (silver lead), Cardiganshire	½	4½	
4000	Calstock United (copper)	5	5	
3000	Cally (copper and coal), Kirkcudbrightsh.	1	1½	
1000	Camborne Consols (copper), Camborne	7	4	
20000	Cameron's Steam Coal (coal), Swansea	10	2	
1168	Caradon Great Cons. (cop.), Linkinhorne	7	2	
1536	Caradon Vale (copper and lead), St. Ive	3½	2½	
6000	Caradon Wood (lead), Linkinghorne	—	2¾	
2000	Carbona (tin and copper), Crowan	5	4	
510	Carn Galver (tin), Morvah and Zennor	2½	3½	
5120	Carn Valley, St. Dennis	1	2	
3000	Carthew Consols (cop. & lead), Wadebridge	4¾	4	
1056	Carvannall (copper), Gwennap	3¾	6½	7 10
2000	Cassandra Anne (lead & cop.), Stoke Clim.	5	5½	
2048	Castle Dinas (tin), St. Columb	½	1½	
200	Cefn Bruno (lead), Cardiganshire	13	54	
5000	Cefn Gwyn (silver-lead), Cardigan	1	1½	1
1024	Chyprase (tin and copper), St. Enoder	3½	5½	3½
1024	Clijah and Wentworth (tin & co.), Redruth	2½	2	3
1000	Cockley Beck (copper)	½	2	
2000	Coed Mawr Pool (lead), Llawrnst	10	10	
2510	Cook's Kitchen (copper and tin), Illogan	15½	4	3½ 4½
1000	Copper Bottom (copper), Crowan	7	4½	3½
900	Court Grange (silver-lead), Cardiganshire	10	12	
211	Craddock Moor (copper), St. Cleer	30	8	
1600	Craig-y-Mwyn (lead), Llanrhiadr, Mont.	8½	10½	
256	Crane and Bejawsa (copper), Camborne	20	25	32
1000	Cwm Daren	1	3½	
1000	Cwm Erfin (lead), Cardiganshire	6	3½	4
2000	Cwm Sebon	—	4	
128	Cwmystwith (lead), Cardiganshire	60	100	110
2000	Cyfannedd Fawr (lead), Lanegryn	½	1	
3000	Dairhiew (copper and lead), Brecon	1½	10	
1000	Daren (silver-lead), Cardiganshire	2	6	
7100	Derwent (silver-lead), Durham	10	2	
5000	Devon Consols North (cop.), Lamerton	2½	1	1½ 1¾ 2½
4023	Devon and Courtenay Consols (copper)	2½	1	1½
768	Devon Great Tincroft, North Bovey	½	4	
5120	Dhurode (copper) Ireland	2	5	
672	Ding-Dong (tin), Gulval	5	7	
4000	Dolfrwynog (copper), Merioneth	½	1	
2560	Drake Walls (tin and copper), Calstock	6½	5½	
128	Drift Moor (tin), Sancreed	2	2	
1536	Duke of Cornwall (copper), St. Winnon	1	2	
3000	Dyfngwm (lead)	10½	9½	5
1024	East Balleswidden (tin), Sancreed	2¾	2	
256	East Basset (copper) Redruth	15	16	21
2500	East Birch Tor, (tin), near Ashburton	3	3	
2048	East Boringdon Park, Plympton	¾	¾ 1	¾ 1
1024	East Buller (copper), near Redruth	3½	4½	3
128	East Carn Brea (copper), Redruth	4	2½	
1948	East Crowndale (copper), Tavistock	7½	1½	
300	East Daren (lead), Cardiganshire	13	20	30
256	East Godolphin (copper), Crowan	22½	19	
4000	East Gunnis Lake Junction (copper)	¾	2	1½ 1¾
512	East Seton and Wheal Maude, Redruth	5¾	3	
9000	East Tamar Consols (sil.-lead), Beerferris	1½	¾	
256	East Tolgus (copper), Redruth	8	9	10
1000	East Trescoll	1	3¾	3
256	East Wheal Frances (copper), Illogan	6½	6	4
2048	East Wheal George (cop.), Walkhampton	1	4 3½	3½ ¾
2048	East Wheal Josiah (copper), Tavistock	1½	¾	
512	East Wheal Leisure (copper)	12	16½	16½ 15
1024	East Wheal Margaret (tin and copper)	1½	4½	
3000	East Wheal Rashleigh, Lanreath	3s	½	
1000	East Wheal Reeth	1½	1½	
4000	East Wheal Russell (copper), Tavistock	½	4	4 4½
1280	Eagair Llee Llanfihangel-y-Croythin	4½	5½	6
1024	Exmoor Eliza (copper), South Molton	4½	3	
6000	Forest (copper and silver-lead), Devon	1½	1	
1024	Freidd Llwydd Mines (lead)	1½	3½	
12000	Gallt-y-Maen (silver-lead), Merioneth	2	2½	

Shares.		Paid.	Last Price.	Present Price.
2560	Garras (silver-lead), near Truro	5½	2¾	
5000	Garreg (lead), Flint		1½	¾
1000	Gelli-rei-vin (silver-lead), Cardiganshire	1	5	
2500	Georgia Consols (tin), St. Ive's	2½	5	
256	Gonamena (copper), St. Cleer	47	12	
243	Grambler and St. Aubyn (copper)	84	34	
6500	Great Bryn Consols (copper and tin)	1	2	2
10000	Great Cowarch (silver-lead), Merioneth	2	3	2
1024	Great Sheba Consols (tin and copper)	8½	3½	3
1024	Great Wheal Alfred (copper), Phillack	7½	3½	3 3½
5120	Great Wheal Baddern (tin and silver-lead)	2	4	4
5000	Great Wheal Martha (cop.), Stoke Clims.	—	1	
512	Great Wheal Rough Tor Consols (copper)	29	15	
1026	Gustavus Mines (copper), Camborne	6½	5	
512	Hawke's Point (copper), Uny Lelant	8½	3½	
6000	Hingston Down Con. (copper), Calstock	2½	3	3½ 3½
32	Helvellin Mining Company, Westmoreland	20	20	
1500	Hennock (silver-lead), Hennock	3	1½	
10000	Hibernian (copper) Ireland	12½	¾	
20000	Kenmare and West of Ireland (copper)	1	2	
1900	Keswick (lead), Portinscale, near Keswick	11	2	
3300	Kilbricken (silver-lead), Clare, Ireland	3	3	
1024	Kingsett and Bedford (lead and copper)	4¾	1½	
1024	La Min (Gwinear), tin and copper	3½	4	
1744	Lamheroe Wheal Maria (copper & tin)	13	8 7	
5000	Lampen Consols (copper), St. Neot	1	1	
252	Lanarth Consols (copper), Gwennap	4	4½	
256	Lelant Consols (tin), Uny Lelant	62	22	17
13000	Llwynmalees (lead), Cardiganshire	1	1	½ ¾
5056	Lydford Consols (lead)	—	1½	
6000	Marke Valley (copper), Caradon	10	2	
512	Melin Llyn (silver-lead), Merionethshire	1	1	
5000	Mendip Hills (lead), near Bristol	3¾	2½	1 1½
5000	Merllyn (lead), Flint	2½	3½	3 3½
1024	Mill Pool (tin and copper), St. Hilary	2	2½	
256	Mineral Court (tin), near St. Austell	25½	17	13
1024	Moditonham & Marrabro' (copper & lead)	2¾	2½	
2000	Molland	1	1½	
160	Morvah Consols (tin and copper)	2	3	
320	Nansegollan (tin and copper), Camborne	7	7	
200	Nanteos (lead), Cardiganshire	34	30	20
3000	Nant-y-Car (copper), near Rhayader	2	7	2
5000	New Copper Bottom (copper) Bridestowe	1½	1½	
2048	New East Crowndale (copper and tin)	1½	¾ 1	
1024	North Buller (copper), Redruth	5	17½	17
2000	North Downs (copper), Redruth	½	¾	¾
256	North Fowey Consols	—	12½	
2000	North Levant (tin and copper), St. Just	1½	2½	
2000	North Tamar (silver-lead & copper) Devon	2	2	
256	North Tolgus (copper), Redruth	11½	5½	
256	North Trefusis (tin and copper), Redruth	1	½	
1200	North Wh. Buller, or Gt. South Tolgus	7	8½	
262	North Wheal Leisure, Perranzabuloe	1½	1½	
1024	North Wh. Robert (copper), Walkhampton	3	1½	1
1060	North Wheal Trelawny (lead), Quethiock	—	—	
2048	Okel Tor (lead)	¾	½	
512	Old Brimpts (tin), Lydford, Ashburton	1½	2½	
256	Old Wheal Basset (copper), Redruth	2	2	
1026	Pendarves Consols (copper), Camborne	3½	4	
1000	Pendarves and St. Aubyn (tin and copper)	5	7	4
406	Penhauger	1	2	
4931	Pennant and Craigwen (lead)	3	¾	½
1000	Penralt	1	3	
2048	Pentire Glaze (silver-lead), St. Minver	5½	5	
700	Pen-y-bank and Erglodd (lead)	4½	3½	3½
1024	Penzance Consols (tin), Sancreed	2½	1½	1½
1000	Peter Tavy and Mary Tavy (copper)	4½	8	8 9
2048	Plymouth Wh Yeoland Con. (tin), Plym.	1¾	1½	
1000	Polberro (tin), St. Agnes	15	13½	
2000	Polgear (copper and tin)	1	3	
1024	Praed Consols (tin), Towednack	1½	17 1s	
1024	Prince Albert (tin), Perranzabuloe	1½	1	
2500	Rhoswydol and Bacheiddon (lead)	10½	6	
10000	Rhymney Iron (iron), Rhymney	50	12	
10000	Ditto New	7	8	
1948	Rix Hill (tin), Tavistock	1	1	
5000	Rocks and Treverbyn (tin), St. Austell	4½	4	
2048	Runnaford Coombe (tin)	3	2¾	
1024	Sidney Godolphin (copper), Breage	3½	2	
10000	Silver Valley & Wh. Brothers (silv.-lead)	1	1½	¾ 1
2048	Snowdon (copper), Carnarvonshire	3	3	
1024	Sourton Consols	2½	3¾	
2000	South of Scotland	1½	1	
2000	South Carn Brea (copper), Illogan	10	7	4
256	South Friendship Wh. Ann (copper & tin)	30	28	
1024	South Plain Wood (copper), Ashburton	4¾	6	
300	South Speed (copper and tin), Uny Lelant	15	30	
9000	South Tamar (silver-lead), Beer Ferris	1½	2½	2½
198	South Trelawny (lead), near Liskeard	35½	4	
2000	South Wales Mining Company (lead)	1½	2½	2
256	South Wheal Josiah (copper), Calstock	2	1½	
280	Spearne Moor (copper), St. Just	30	40	
1024	St. Aubyn and Grylls (copper and tin)	3	4	
12000	St. Enoder (copper and lead) St. Enoder	1	1½	
990	St. Minver Consols silver-lead)	1	3	

Shares.		Paid.	Last Price.	Present Price.
687	Tavy Consols (copper), near Tavistock	8½	3½	
5000	Temple Consols (tin & copper) Cornwall	2	5	
128	Tokenbury (copper), St. Ive, Liskeard	10½	10	
1200	Tolcarne (tin and copper), Camborne	2½	½	
1024	Trannack and Bosence, St. Erth	1½	3½	2¾ 3½
1024	Traunack United Mines (tin and copper)	1¾	3½	3½
1024	Trebarvah, Perranuthnoe	1	4½	3½
2048	Trebell Consols (tin and copper), Lanivet	1½	1½	1¾
600	Tregardock (lead), St. Teath	1½	5	
224	Tregorden (silver-lead) Wadebridge	15½	10	
1000	Treloweth (copper), St. Erth	5	5	
600	Trelyon Consols (tin), St. Ive's	4¾	5	
940	Tremar (copper), Liskeard	2½	½ ¾	
2000	Trenance (copper), Helston	6	5	
6000	Tremault (lime quarries)	21s	21s	
512	Trethevy (copper), St. Cleer	11½	4½	
512	Treville (lead), Lewanick	4¾	5	5
604	Trowan Consols (tin), Towedneck	7	9	
100	Trumpet Consols (tin), near Helston	95	100	
4000	Tyn-y-Worglod (slate), near Carnarvon	4	4	
500	Tywarnhayle (cop.), Illogan & St. Agnes	60	22	
512	Tywardreath (copper), St. Blazey	4	12½	
1024	United Mines (copper and tin), Tavistock	12	10	
200	United Mines (copper), Gwennap	300	75	85
5000	Warleggan Consols (copper)	½	½ ¾	
1024	West Alfred Consols	9½	12½	11 12 10½
6000	West Basset (copper), Illogan	¾	5½	8
1024	West Beam (tin), St. Austell	24s 6d	2½	
256	West Damsel (copper), Gwennap	5½	51½	50
1024	West Ding-Dong (tin)	1	2½	2½
512	West Fowey Con. (tin & cop.), St. Blazey	40	60	
2048	West Goginan (silver-lead), Cardiganshire	1¾	3	
1024	West Par Consols (copper), St. Blazey	10	10	
1024	West Phœnix, Linkinghorne	5	6	
6500	West Polgooth (tin), St. Ewe & St. Mewan	1	½	½
200	West Seton (copper), Camborne	71	115	
256	West Sharp Tor (copper) Linkinghorne	22	49	
940	West Tolgus (copper), Illogan	14½	4½	
120	West Trethellan (copper), Gwennap	15	10	
5000	West Wheal Alfred	1¾	1½	
512	West Wheal Frances (copper), Illogan	8	11	12
4000	West Wheal Friendship (copper)	1½	¾	
3715	West Wheal Jewel (tin and copper)	12	¾	
3715	Ditto preference	¾		
2048	West Wheal Rose	2	1½	
4000	West Wheal Russell, Tavistock		¾	¾
1024	West Wheal Sheba	10s	1	
500	West Wheal Towan (copper), Illogan	21	10	12 11½
1024	West Wheal Treasury (copper), Gwinear	8	3½ ½	5
1024	West Wheal Virgin (tin), Sancreed	2	1½	
1024	Weston (lead), Cherbury, Shropshire	1½	¾	
1070	Wheal Adams (lead), Christow, Exeter	13¾	16	
1000	Wheal Agar (copper), Illogan	6	5	
300	Wheal Arthur (lead), near East Wh. Rose	17	49	
1228	Wheal Arthur (silver-lead&cop.), Calstock	1¾	3½	
3072	Wheal Augusta (tin), St. Just	1	1½	
240	Wheal Bal (tin), St. Just	5½	10	
2500	Wheal Caradon (copper), St. Cleer	2	2	
256	Wheal Carpenter (tin), Gwinear	1½	5	2¾ 3
1024	Wh. Carpenter (lead & cop.) S. Sydenham	3	3½ ½	3
124	Wh. Castle and Boswedden (tin & copper)	5	20	
1024	Wheal Catherine (silver-lead), Liskeard	2½	3	
1024	Wheal Crebor (copper), Tavistock	4	4	3½ 4 4½
1024	Wheal Cupid (copper), Gwennap	1	1¾	¾ ½
3000	Wheal Dora (tin and copper), St. Cleer	3½	5½	
4096	Wheal Edward (copper), Calstock	¼	¾	½ ¾
182	Wheal Elizabeth (copper), Redruth	23	1½	
1024	Wheal Emma	½	5	5
182	Wheal Ennis (lead), St. Erme	17	20	12½
1070	Wheal Enys (tin), Wendron	1¾	1½	
5000	Wheal Fanny (lead)	—	3	
916	Wheal Fortescue (copper), Tavistock	5½	¾	
2048	Wheal Fortune (lead), Landulph	2s	¾	1
764	Wheal Franco (copper), near Tavistock	14½	8	7 8
100	Wheal Friendly (tin), St. Agnes	70	31	
256	Wheal Gennys (lead), St. Buderœ	13	25	
1536	Wheal Gill (cop. and lead), Liskeard	3	2½	1 1½
2048	Wheal Hamlyn, near Oakhampton	1½	¾	
2560	Wheal Harriet (copper), Camborne	1	¾ ½	½ ¾
2048	Wheal Harris (lead), near Tavistock	¾	1	
216	Wheal Henry (copper), Kea, near Truro	25	8	
6000	Wheal Langford (copper and silver-lead)	½	½	¾
1000	Wheal Lemon, Germoe	1½	½	
942	Wheal May (silver-lead and copper	3	2½	
1024	Wheal Mary Ann (copper), Bridestow	—	2	
1024	Wheal Mary Emma, Tavistock	1½	2½	2 2½
1024	Wheal Maudlin, Llanlivery	1	4¾	
1024	Wheal Neptune (copper), Perranuthnoe	2	2½	
1080	Wheal Oak, near Helston	1½	1½	
3000	Wheal Penhale (lead and copper)	2¾	3½	
128	Wheal Plenty (copper), Redruth	29	38	
128	Wheal Pollard (copper), St. Cleer	15¾	10	
5000	Wheal Providence, South Sydenham	¼	3	
256	Wheal Prudence (copper), St. Agnes	3½	4	
2048	Wheal Robins	½	1½	
4000	Wheal Russell (copper), Tavistock	2	1½	1½ 1¾
5000	Wheal Ruth (tin), Shepstor	2	2	
10000	Wheal Samson (copper), St. Teath	1	1	1½ 1½ 2
512	Wheal Sophia (silver-lead), Lezant	7	6½	
1024	Wheal Speedwell (copper and tin)	3	3	3
1024	Wheal Squire (copper), St. Erth	3	3	
256	Wheal St. Agnes (tin), St. Agnes	1½	5	
1024	Wheal Stanagwyn (copper), St. Stephen's	1	¼	
1000	Wheal Susan, Breage and Crowan	1½	1½	
1024	Wheal Sydney, Plympton	1½	4	
2000	Wheal Tom (tin & copper), Stoke Clims.	5	11½	8 10
1000	Wheal Treasury	1	1½	
512	Wheal Trefusis (copper), Gwennap	9½	14	
1024	Wheal Trelusback (copper), Stythians	5½	5	
256	Wheal Tremaine (copper), St. Ervan	11	1	
4224	Wheal Trewane (silver-lead), St. Kew	1½	5	
267	Wheal Tryphena (tin and cop.), Redruth	40	18½	
126	Wheal Union (copper), Redruth	40	40	
6000	Wh. Unity Consols (cop. & tin), Gwinear	2	3½	
1024	Wheal Uny (tin and copper)	3	5½	
1024	Wheal Venton (silver-lead), Liskeard	4¾	6½	6½
4000	Wheal Victoria (copper)	—	2¾	
1000	Wheal Vincent (tin), Alternum	7¾	7½	
512	Wheal Violet (tin and cop.), St. Stephens	1¾	3½	
256	Wheal Vlow	2	4	
4000	Wheal Williams (copper)	—	1¾	2
1024	Wheal Wrey (lead), St. Ive, Liskeard	2s 6d	2	
4096	Wheal Zion (copper and lead), Tavistock	1½	8	6 7 8

Shares.	FOREIGN MINES.	Paid.	Present Price
12000	Annotto Bay Mining Association (copper), Jamaica	1	5
19000	Australian (copper), South Australia	5	½ ¾
3250	Kinzigthal Mining Association (silver), Germany	2½	2
12000	Liguanea and General Mining Company of Jamaica	1	2½
5000	Linares (lead), Spain	3s	1
500	Ditto Preference	3	3
4500	Ditto Additional	1	1½
20000	Mexican and South American (copper), Mexico	4½	4½
5000	National Brazilian (gold), Brazil	30	2½ 2½
104000	North British Australasian (copper), S. A. & New Zea.	1	½
10000	Worthing (copper), Adelaide, South Australia	4	2½ 2½

BICKFORD'S PATENT SAFETY FUSE.—The Patentees of the ORIGINAL, and only real, SAFETY FUSE, beg to inform Merchants, Mine Agents, Railway Contractors, and all persons concerned in Blasting Operations, that, for the purpose of protecting the public in the use of a genuine article, the PATENT SAFETY FUSE *has now a thread wrought into its centre*, which being patent right, infallibly *distinguishes it from all imitations*, and ensures the continuity of the gunpowder. The Safety Fuse is now protected by a Second Patent, and manufactured by greatly improved machinery. BICKFORD, SMITH, DAVEY, Camborne, Cornwall.

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SEWERAGE OF LONDON.—The ATTENTION of the COMMISSIONERS appointed to determine upon the MOST EFFICIENT MATERIAL for the CONSTRUCTION of the SEWERS OF LONDON, is particularly directed to the ASPHALTE OF SEYSSEL, which more than any other material is applicable to the CONSTRUCTING and INTERNAL COATING of BRICK CULVERTS and OTHER CHANNELS for DRAINAGE.
The experiments made by the Royal Artillery on the embrasures of Plymouth Citadel, constructed of Seyssel Asphalte Brickwork, under the orders of the Hon. Board of Ordnance, have fully proved the superiority, adhesiveness, and strength of Seyssel Asphalte over all other cementitious compositions. A printed account of these experiments can be had on application to I. FARRELL, Secretary.
Seyssel Asphalte Company—"Claridge's Patent"—Established 1838.
Note.—The application of the Asphalte of Seyssel is specially recommended by the Commissioners on the Fine Arts for covering the ground line of brickwork in marshy situations, and it has been suggested that it would be peculiarly applicable for covering the *areas* of closed *grave yards*, and for the construction of *catacombs*.

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